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* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	AUG 06	CAS REGISTRY enhanced with new experimental property tags
NEWS 3	AUG 06	FSTA enhanced with new thesaurus edition
NEWS 4	AUG 13	CA/CAplus enhanced with additional kind codes for granted patents
NEWS 5	AUG 20	CA/CAplus enhanced with CAS indexing in pre-1907 records
NEWS 6	AUG 27	Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
NEWS 7	AUG 27	USPATOLD now available on STN
NEWS 8	AUG 28	CAS REGISTRY enhanced with additional experimental spectral property data
NEWS 9	SEP 07	STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS 10	SEP 13	FORIS renamed to SOFIS
NEWS 11	SEP 13	INPADOCDB enhanced with monthly SDI frequency
NEWS 12	SEP 17	CA/CAplus enhanced with printed CA page images from 1967-1998
NEWS 13	SEP 17	CAplus coverage extended to include traditional medicine patents
NEWS 14	SEP 24	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 15	OCT 02	CA/CAplus enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS 16	OCT 19	BEILSTEIN updated with new compounds
NEWS 17	NOV 15	Derwent Indian patent publication number format enhanced
NEWS 18	NOV 19	WPIX enhanced with XML display format
NEWS 19	NOV 30	ICSD reloaded with enhancements
NEWS 20	DEC 04	LINPADOCDB now available on STN
NEWS 21	DEC 14	BEILSTEIN pricing structure to change
NEWS 22	DEC 17	USPATOLD added to additional database clusters
NEWS 23	DEC 17	IMSDRUGCONF removed from database clusters and STN
NEWS 24	DEC 17	DGENE now includes more than 10 million sequences
NEWS 25	DEC 17	TOXCENTER enhanced with 2008 MeSH vocabulary in MEDLINE segment
NEWS 26	DEC 17	MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
NEWS 27	DEC 17	CA/CAplus enhanced with new custom IPC display formats
NEWS 28	DEC 17	STN Viewer enhanced with full-text patent content from USPATOLD
NEWS 29	JAN 02	STN pricing information for 2008 now available
NEWS 30	JAN 16	CAS patent coverage enhanced to include exemplified prophetic substances
NEWS 31	JAN 28	USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS 32	JAN 28	MARPAT searching enhanced
NEWS 33	JAN 28	USGENE now provides USPTO sequence data within 3 days of publication
NEWS 34	JAN 28	TOXCENTER enhanced with reloaded MEDLINE segment

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 NEWS 35  JAN 28  MEDLINE and LMEDLINE reloaded with enhancements
 NEWS 36  FEB 08  STN Express, Version 8.3, now available


 NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,
              AND CURRENT DISCOVER FILE IS DATED 24 JANUARY 2008

 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.

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* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 09:04:13 ON 20 FEB 2008

=> file registry
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.21       0.21

FILE 'REGISTRY' ENTERED AT 09:04:24 ON 20 FEB 2008
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provided by InfoChem.

STRUCTURE FILE UPDATES:   19 FEB 2008  HIGHEST RN 1004621-14-0
DICTIONARY FILE UPDATES:  19 FEB 2008  HIGHEST RN 1004621-14-0

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TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> file registry
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.46       0.67

FILE 'REGISTRY' ENTERED AT 09:04:55 ON 20 FEB 2008
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 19 FEB 2008 HIGHEST RN 1004621-14-0
DICTIONARY FILE UPDATES: 19 FEB 2008 HIGHEST RN 1004621-14-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

```
=> e hydroxymethylfurfural
E1            1     HYDROXYMETHYLFURATRIZINE/BI
E2            3     HYDROXYMETHYLFURFUR/BI
E3            2 --> HYDROXYMETHYLFURFURAL/BI
E4            1     HYDROXYMETHYLFURFURALALDEHYDE/BI
E5            1     HYDROXYMETHYLFURFURALDEHYDE/BI
E6            1     HYDROXYMETHYLFURFUROL/BI
E7            1     HYDROXYMETHYLFURFURYL/BI
E8            1     HYDROXYMETHYLFURME/BI
E9            1     HYDROXYMETHYLFURMETHI/BI
E10           1     HYDROXYMETHYLFURMETHIDE/BI
E11           2     HYDROXYMETHYLFURO/BI
E12           1     HYDROXYMETHYLGLUTAM/BI

=> s e3
L1            2 HYDROXYMETHYLFURFURAL/BI

=> d l1 1-2

L1   ANSWER 1 OF 2  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   25376-49-2  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   2-Furancarboxaldehyde, (hydroxymethyl)- (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   2-Furaldehyde, (hydroxymethyl)- (7CI, 8CI)
OTHER NAMES:
CN   Hydroxymethylfurfural
MF   C6 H6 O3
CI   IDS, COM
LC   STN Files:   AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS,
       CASREACT, DDFU, DETHERM*, DRUGU, EMBASE, IPA, PIRA, PROMT, TOXCENTER,
       USPATOLD
         (*File contains numerically searchable property data)
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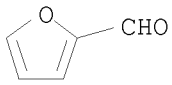
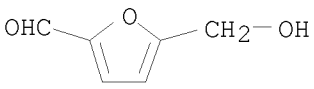


D1—CH_2—OH

333 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
333 REFERENCES IN FILE CAPLUS (1907 TO DATE)
17 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L1 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2008 ACS on STN
RN 67-47-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN 2-Furancarboxaldehyde, 5-(hydroxymethyl)- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2-Furaldehyde, 5-(hydroxymethyl)- (8CI)
OTHER NAMES:
CN 2-Hydroxymethyl-5-furfural
CN 5-(Hydroxymethyl)-2-furaldehyde
CN 5-(Hydroxymethyl)-2-furancarbonal
CN 5-(Hydroxymethyl)-2-furancarboxaldehyde
CN 5-(Hydroxymethyl)-2-furfural
CN 5-(Hydroxymethyl)-2-furfuraldehyde
CN 5-(Hydroxymethyl)furfural
CN 5-Hydroxymethyl-2-formylfuran
CN 5-Hydroxymethylfuraldehyde
CN 5-Hydroxymethylfuran-2-aldehyde
CN 5-Hydroxymethylfurfuraldehyde
CN 5-Hydroxymethylfurfurol
CN 5-Oxymethylfurfurole
CN HMF
CN Hydroxymethylfurfural
CN Hydroxymethylfurfuralaldehyde
CN Hydroxymethylfurfuraldehyde
CN NSC 40738
DR 76330-16-0
MF C6 H6 O3
CI COM
LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOSIS, BIOTECHNO, CA, CABA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, EMBASE, GMELIN*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, NAPRALERT, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, USPAT2, USPATFULL, USPATOLD
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3100 REFERENCES IN FILE CA (1907 TO DATE)

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              36 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            3109 REFERENCES IN FILE CAPLUS (1907 TO DATE)
              51 REFERENCES IN FILE CAOLD (PRIOR TO 1967)


=> e alphaketoglutaric
E1            1     ALPHAIV/BI
E2            1     ALPHAJEL/BI
E3            0 --> ALPHAKETOGLUTARIC/BI
E4            1     ALPHAKIL/BI
E5            3     ALPHAL/BI
E6            2     ALPHALB/BI
E7            1     ALPHALIN/BI
E8            2     ALPHALOY/BI
E9            1     ALPHALUX/BI
E10           4     ALPHAM/BI
E11           7     ALPHAM1/BI
E12           1     ALPHAMAL/BI

=> s 328-50-7
L2            1 328-50-7
                  (328-50-7/RN)

=> d

L2   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   328-50-7  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   Pentanedioic acid, 2-oxo-  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   Glutaric acid, 2-oxo- (8CI)
OTHER NAMES:
CN   α-keto-Glutaric acid
CN   α-Ketoglutaric acid
CN   α-Oxoglutaric acid
CN   α-Oxopentanedioic acid
CN   2-Ketoglutaric acid
CN   2-Oxo-1,5-pentanedioic acid
CN   2-Oxoglutaric acid
CN   2-Oxopentanedioic acid
CN   NSC 17391
DR   27175-99-1
MF   C5 H6 O5
CI   COM
LC   STN Files:   AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS, BIOTECHNO, CA, CABA,
       CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, CSNB,
       DDFU, DETHERM*, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE,
       MRCK*, MSDS-OHS, NAPRALERT, PROMT, RTECS*, SYNTHLINE, TOXCENTER, USPAT2,
       USPATFULL, USPATOLD
         (*File contains numerically searchable property data)
     Other Sources:   DSL**, EINECS**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
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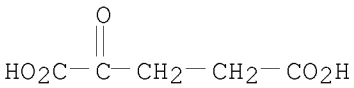

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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            8979 REFERENCES IN FILE CA (1907 TO DATE)
             166 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            8997 REFERENCES IN FILE CAPLUS (1907 TO DATE)
              15 REFERENCES IN FILE CAOLD (PRIOR TO 1967)


=> e dehydroascorbic
E1            1     DEHYDROASCORBATASE/BI
E2          124     DEHYDROASCORBATE/BI
E3           23 --> DEHYDROASCORBIC/BI
E4            1     DEHYDROASCRO/BI
E5            1     DEHYDROASCROBI/BI
E6            1     DEHYDROASCROBIC/BI
E7            3     DEHYDROASIMILO/BI
E8            3     DEHYDROASIMILOBI/BI
E9            3     DEHYDROASIMILOBINE/BI
E10           1     DEHYDROASPART/BI
E11           1     DEHYDROASPARTAME/BI
E12           2     DEHYDROASPARTIC/BI

=> s e3
L3           23 DEHYDROASCORBIC/BI

=> file caplus
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                     ENTRY    SESSION
FULL ESTIMATED COST                                  18.60      19.27

FILE 'CAPLUS' ENTERED AT 09:08:09 ON 20 FEB 2008
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FILE COVERS 1907 - 20 Feb 2008  VOL 148 ISS 8
FILE LAST UPDATED: 19 Feb 2008  (20080219/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/infopolicy.html

=> s (l1 or hmf of hydroxymethylfurfur?) and (l2 or ketoglut?) and ?methionine
          3362 L1
          1257 HMF
            29 HMFS
          1275 HMF
                 (HMF OR HMFS)
          2447 HYDROXYMETHYLFURFUR?
            17 HMF OF HYDROXYMETHYLFURFUR?
```

```
                (HMF(1W)HYDROXYMETHYLFURFUR?)
          8997 L2
         13225 KETOGLUT?
        101086 ?METHIONINE
L4           1 (L1 OR HMF OF HYDROXYMETHYLFURFUR?) AND (L2 OR KETOGLUT?) AND
               ?METHIONINE

=> d l4

L4   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2008 ACS on STN
AN   2004:467738  CAPLUS
DN   141:17591
TI   Agent having a destructive effect on malignant tumors and method for the
     production
IN   Groke, Karl; Herwig, Ralf
PA   C.Y.L. Handelsges. m.b.H., Austria; Ferdinand, Peter
SO   PCT Int. Appl., 35 pp.
     CODEN: PIXXD2
DT   Patent
LA   German
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     --------------      ----   --------    -------------------    --------
PI   WO 2004047832        A1    20040610    WO 2003-EP50712        20031013
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
             GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
             LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
             OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
             TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AT 2002001778         A     20040815    AT 2002-1778           20021127
     AT 412447             B     20050325
     CA 2507273            A1    20040610    CA 2003-2507273        20031013
     AU 2003285351         A1    20040618    AU 2003-285351         20031013
     EP 1565176            A1    20050824    EP 2003-778338         20031013
     EP 1565176            B1    20060524
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     JP 2006508998         T     20060316    JP 2004-554531         20031013
     AT 326958             T     20060615    AT 2003-778338         20031013
     PT 1565176            T     20061031    PT 2003-778338         20031013
     ES 2268452            T3    20070316    ES 2003-778338         20031013
     US 2006292218         A1    20061228    US 2006-536777         20060907
PRAI AT 2002-1778          A     20021127
     EP 2003-778338        A     20031013
     WO 2003-EP50712       W     20031013
RE.CNT  4     THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> s (l1 or hmf of hydroxymethylfurfur?) and (l2 or ketoglut?)
          3362 L1
          1257 HMF
            29 HMFS
          1275 HMF
                 (HMF OR HMFS)
          2447 HYDROXYMETHYLFURFUR?
            17 HMF OF HYDROXYMETHYLFURFUR?
```

```
                (HMF(1W)HYDROXYMETHYLFURFUR?)
          8997 L2
         13225 KETOGLUT?
L5          10 (L1 OR HMF OF HYDROXYMETHYLFURFUR?) AND (L2 OR KETOGLUT?)

=> d l5 ibib abs 1-10

L5   ANSWER 1 OF 10  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:        2007:1140948  CAPLUS
DOCUMENT NUMBER:         147:420129
TITLE:                   Use of α- ketoglutaric acid and
                         5-hydroxymethylfurfural for reducing oxidative stress
INVENTOR(S):             Moser, Peter Michael; Greilberger, Joachim; Maier,
                         Alfred; Juan, Heinz; Buecherl-Harrer, Christian;
                         Kager, Ernst
PATENT ASSIGNEE(S):      C.Y.L. Pharmazeutika GmbH, Austria
SOURCE:                  Eur. Pat. Appl., 7pp.
                         CODEN: EPXXDW
DOCUMENT TYPE:           Patent
LANGUAGE:                German
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
     EP 1842536           A1    20071010    EP 2007-104493         20070320
         R:  AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR,
             AL, BA, HR, MK, YU
     AT 503385            A1    20071015    AT 2006-464            20060320
PRIORITY APPLN. INFO.:                      AT 2006-464         A  20060320
AB   The invention discloses the use of α- ketoglutaric acid and
     5-hydroxymethylfurfural for the preparation of a medicament for the treatment
     and prevention of oxidative stress in humans and animals, particularly for
     the reduction of reactive oxygen and nitrogen species and simultaneously
     increasing antioxidant capacity.  The compds. of the invention can be used
     for the improvement of general conditions and improving performance.
REFERENCE COUNT:         5     THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5   ANSWER 2 OF 10  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:        2007:758613  CAPLUS
DOCUMENT NUMBER:         147:197593
TITLE:                   Using tolerance intervals in pre-study validation of
                         analytical methods to predict in-study results
AUTHOR(S):               Rozet, Eric; Hubert, Cedric; Ceccato, Attilio; Dewe,
                         Walthere; Ziemons, Eric; Moonen, Francois; Michail,
                         Karim; Wintersteiger, Reinhold; Streel, Bruno;
                         Boulanger, Bruno; Hubert, Philippe
CORPORATE SOURCE:        Laboratory of Analytical Chemistry, Bioanalytical
                         Chemistry Research Unit, Institute of Pharmacy, CHU,
                         University of Liege, Liege, B-4000, Belg.
SOURCE:                  Journal of Chromatography, A (2007), 1158(1-2),
                         126-137
                         CODEN: JCRAEY; ISSN: 0021-9673
PUBLISHER:               Elsevier B.V.
DOCUMENT TYPE:           Journal
LANGUAGE:                English
AB   It is recognized that the purpose of validation of anal. methods is to
     demonstrate that the method is suited for its intended purpose.
     Validation is not only required by regulatory authorities, but is also a
     decisive phase before the routine use of the method.  For a quant. anal.
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method the objective is to quantify the target analytes with a known and suitable accuracy. For that purpose, first, a decision about the validity of the method based on prediction is proposed: a method is declared proper for routine application if it is considered that most of the future results generated will be accurate enough. This can be achieved by the "β-expectation tolerance interval" (accuracy profile) as the decision tool to assess the validity of the anal. method. Moreover, the concept of "fit-for-purpose" is also proposed here to select the most relevant response function as calibration curve, i.e. choosing a response function based solely on the predicted results this model will allow to obtain. This paper reports 4 case studies where the results obtained with quality control samples in routine were compared to predictions made in the validation phase. Predictions made using the "β-expectation tolerance interval" are shown to be accurate and trustful for decision making. It is therefore suggested that an adequate way to conciliate both the objectives of the anal. method in routine anal. and those of the validation step consists in taking the decision about the validity of the anal. method based on prediction of the future results using the most appropriate response function curve, i.e. the fit-for-future-purpose concept.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1326164 CAPLUS

DOCUMENT NUMBER: 146:134507

TITLE: Development and validation of a liquid chromatographic method for the determination of hydroxymethylfurfural and alpha-ketoglutaric acid in human plasma

AUTHOR(S): Michail, K.; Juan, H.; Maier, A.; Matzi, V.; Greilberger, J.; Wintersteiger, R.

CORPORATE SOURCE: Institute of Pharmaceutical Sciences, University of Graz, Austria

SOURCE: Analytica Chimica Acta (2007), 581(2), 287-297
CODEN: ACACAM; ISSN: 0003-2670

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Hydroxymethylfurfural (HMF) and alpha-ketoglutaric acid (KG) have been recently investigated as potential cancer cell damaging agents. We herein report for the first time a validated quant. assay for their simultaneous determination in human plasma which is amenable to be applied in the future screening of the target compds. in human probands in order to properly design a targeted chemotherapeutic regimen for certain types of malignant tumors. A simple liquid chromatog. method in conjunction to derivatization after a two-step optimized solid phase clean-up procedure is described. The method is based on the reaction of HMF and KG with 2-nitrophenylhydrazine or 2,4-dinitrophenylhydrazine in an aqueous environment. Reaction conditions were studied with respect to pH, reagent volume, reaction temperature and time. Exact testing of such parameters beside careful selection of the mobile phase composition rendered feasible the quantification of the chemical significantly differing analytes along a single chromatog. run. The formed derivs. could be separated isocratically by reversed-phase LC on a C8-column. Detection in the UV and in the visible range is possible. Results showed good recovery and reproducibility with detection limits (S/N = 3) down to 2 pmol analyte on column. Resolution of the syn and anti geometric isomers of the HMF and KG derivs. is possible. The isomeric ratio in relation to the reaction pH is discussed.

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:467738 CAPLUS
DOCUMENT NUMBER: 141:17591
TITLE: Agent having a destructive effect on malignant tumors and method for the production
INVENTOR(S): Groke, Karl; Herwig, Ralf
PATENT ASSIGNEE(S): C.Y.L. Handelsges. m.b.H., Austria; Ferdinand, Peter
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004047832	A1	20040610	WO 2003-EP50712	20031013
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AT 2002001778	A	20040815	AT 2002-1778	20021127
AT 412447	B	20050325		
CA 2507273	A1	20040610	CA 2003-2507273	20031013
AU 2003285351	A1	20040618	AU 2003-285351	20031013
EP 1565176	A1	20050824	EP 2003-778338	20031013
EP 1565176	B1	20060524		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006508998	T	20060316	JP 2004-554531	20031013
AT 326958	T	20060615	AT 2003-778338	20031013
PT 1565176	T	20061031	PT 2003-778338	20031013
ES 2268452	T3	20070316	ES 2003-778338	20031013
US 2006292218	A1	20061228	US 2006-536777	20060907

PRIORITY APPLN. INFO.:		
AT 2002-1778	A	20021127
EP 2003-778338	A	20031013
WO 2003-EP50712	W	20031013

AB Disclosed is an agent which has a destructive effect on malignant tumors and contains alpha-ketoglutaric acid, N-acetyl-seleno-L-methionine, N-acetyl-L-methionine, and a compound that is capable of forming azomethine and is selected among the group 5-hydroxymethylfurfural, dehydroascorbic acid, maltol, and vanillin as an active substance, 5-hydroxymethylfurfural being preferred. The inventive agent can be used in the form of an infusion, in an oral or rectal form of administration, or as an irrigation in cancer therapy. The treatment of cancer patients with the following infusion solution is reported: α-ketoglutaric acid 9.0 g/L; 5-hydroxymethyl furfural 3.0 g/L; N-acetyl-seleno-L-methionine 2.0 mg/L; N-acetyl-L-methionine 100.00 mg/L; glucose 30.0 g/L; sodium and potassium ions to set pH.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:909147 CAPLUS
DOCUMENT NUMBER: 139:369764
TITLE: Composition for the treatment of alcohol and smoking

dependence using 5-hydroxymethylfurfural-containing drinks
INVENTOR(S): Groke, Karl; Kager, Ernst; Buecherl, Christian
PATENT ASSIGNEE(S): Austria
SOURCE: Eur. Pat. Appl., 4 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1362586	A1	20031119	EP 2003-450035	20030205
EP 1362586	B1	20050907		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
AT 2002000764	A	20031015	AT 2002-764	20020517
AT 411730	B	20040525		
AT 303806	T	20050915	AT 2003-450035	20030205
ES 2252651	T3	20060516	ES 2003-450035	20030205
CA 2486298	A1	20031127	CA 2003-2486298	20030515
WO 2003097032	A1	20031127	WO 2003-AT140	20030515
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003232906	A1	20031202	AU 2003-232906	20030515
JP 2005528419	T	20050922	JP 2004-505031	20030515
US 2005274391	A1	20051215	US 2005-514775	20050113

PRIORITY APPLN. INFO.:			
AT 2002-764	A	20020517	
EP 2003-450035	A	20030205	
WO 2003-AT140	W	20030515	

AB The invention concerns the treatment of alc. and smoking dependence by administering a drink that contains per L (g): α-ketoglutaric acid 4-8; 5-hydroxymethylfurfural 0.2-0.6; saccharose 20-40; sodium bicarbonate 2.5-5.0; sorbic acid 0.3-0.8; optionally citric acid 0.5.
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:512775 CAPLUS
DOCUMENT NUMBER: 129:148301
TITLE: Volatile Compounds Involved in the Aroma of Sweet Fortified Wines (Vins Doux Naturels) from Grenache Noir
AUTHOR(S): Schneider, R.; Baumes, R.; Bayonove, C.; Razungles, A.
CORPORATE SOURCE: Laboratoire des Aromes et Substances Naturelles, IPV-ENSAM-INRA, Montpellier, 34060, Fr.
SOURCE: Journal of Agricultural and Food Chemistry (1998), 46(8), 3230-3237
CODEN: JAFCAU; ISSN: 0021-8561
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A typical com. sample of red Vins Doux Naturels (VDN), Maury 1991, was analyzed by liquid-liquid extraction with dichloromethane followed by chromatog.
anal. by GC/FID, GC/MS, and GC/sniffing. GC/sniffing using a DB-Wax and a DB-5 fused silica capillary column revealed five substances having odors corresponding to the aromas of these sweet fortified wines: an enolic lactone, 3-hydroxy-4,5-dimethyl-2(5H)-furanone or sotolone; an acetal, trans-2-methyl-5-hydroxy-1,3-dioxane; and three Et esters, 4-carbethoxy-γ-butyrolactone, Et 2-hydroxyglutarate, and Et pyroglutamate. The last four compds. were synthesized and their olfactory characteristics checked under the same conditions, which confirmed the odors revealed for the natural compds. except for trans-2-methyl-5-hydroxy-1,3-dioxane, which exhibited no odor. Furthermore, five other sweet fortified wines subjected to different types of oxidative aging were analyzed to quant. determine the four identified aroma compds. The three Et esters were found in these wines at different levels increasing with oxidative aging. However, sotolone could not be detected. In addition, other volatile compds. from the six wines were analyzed. The levels of polar Et esters and the related lactones, the carbonyl compds., and their acetals increased in the wines after oxidative aging as well.
REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1985:77413 CAPLUS
DOCUMENT NUMBER: 102:77413
ORIGINAL REFERENCE NO.: 102:12135a,12138a
TITLE: Polar carbonyls in cow and buffalo ghee
AUTHOR(S): Rao, D. Vijayender; Ramamurthy, M. K.
CORPORATE SOURCE: Southern Reg. Stn., Natl. Dairy Res. Inst., Bangalore, 560030, India
SOURCE: Indian Journal of Dairy Science (1984), 37(2), 98-102
CODEN: IJDSAI; ISSN: 0019-5146
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Polar carbonyls (PC) were isolated as their 2,4-DNP hydrazones from ghee and estimated Ghee prepared at clarification temps. of 100° and 120° for 10 min. contained .apprx.1.9 and 31.5 mg of PC resp. in the case of fresh cream, 6.1 and 75.8 mg in the case of acid cream, and 1.4 and 3.2 mg/100 g ghee in the case of butter. Sepns. of 2,4-DNP hydrazones of total PC of ghee clarified at 100° by TLC showed 6 components. Three of them were tentatively identified as diacetyl [431-03-8], methyl glyoxal [78-98-8], and α- ketoglutaric acid [328-50-7]. The PC of ghee clarified at 120° showed 10 components. Among them, in addition to the 3 above were, furfural [98-01-1] and hydroxy Me furfural [25376-49-2] were also tentatively identified.

L5 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1984:185071 CAPLUS
DOCUMENT NUMBER: 100:185071
ORIGINAL REFERENCE NO.: 100:28001a,28004a
TITLE: High-performance liquid chromatographic elution behavior of alcohols, aldehydes, ketones, organic acids and carbohydrates on a strong cation-exchange stationary phase
AUTHOR(S): Pecina, R.; Bonn, G.; Burtscher, E.; Bobleter, O.
CORPORATE SOURCE: Inst. Radiochem., Univ. Innsbruck, Innsbruck, Austria
SOURCE: Journal of Chromatography (1984), 287(2), 245-58
CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The high-performance liquid chromatog. separation of alcs., aldehydes, ketones, carboxylic acids, and carbohydrates on a polystyrene-based strong cation-exchange resin is described. The column temperature was a very important parameter for optimizing sepns. of these substances. The effect of different functional groups on the elution behavior is discussed.

L5 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1981:548868 CAPLUS
DOCUMENT NUMBER: 95:148868
ORIGINAL REFERENCE NO.: 95:24905a,24908a
TITLE: Aroma of Balady bread. 1. Determination of carbonyl components
AUTHOR(S): El-Samahy, S. K.; Elias, A. N.; Askar, A.
CORPORATE SOURCE: Fac. Agric., Univ. Zagazig, Zagazig, Egypt
SOURCE: Getreide, Mehl und Brot (1981), 35(7), 182-4
CODEN: GEMBAN; ISSN: 0367-4177
DOCUMENT TYPE: Journal
LANGUAGE: German
AB Balady bread, fermented dough, and dough fresh from mixing were homogenized with H2O (200 g in 200 mL), extracted with CHCl3, treated with 2,4-dinitrophenylhydrazine in 2N HCl to derivatize the carbonyls, and the dinitrophenylhydrazones were separated by paper chromatog. The carbonyl compds. were determined by reaction gas chromatog. with α-ketoglutaric acid at 250° to liberate free carbonyls in the precolumn for separation on a 20% Carbowax 20M on Chromosorb P (35-80 mesh) column. Fourteen of the 27 compds. separated were identified, 12 aldehydes and 2 ketones. Most of the carbonyls formed during dough fermentation Two unidentified compds. were >63% of the carbonyls in unfermented dough, one of which increased to 48% of the total and the other nearly disappeared during fermentation; both compds. were absent from bread. The major carbonyls in baked bread were propanal [123-38-6], acetone [67-64-1], and 2-methylpentanal [123-15-9].

L5 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1964:457866 CAPLUS
DOCUMENT NUMBER: 61:57866
ORIGINAL REFERENCE NO.: 61:10047c-f
TITLE: Determination of furan aldehydes. Reaction with aniline in acetic and hydrochloric acid solutions
AUTHOR(S): Friedemann, Theodore E.; Keegan, Patricia K.; Witt, Norman F.
CORPORATE SOURCE: Univ. of Colorado, Boulder
SOURCE: Analytical Biochemistry (1964), 8(3), 300-11
CODEN: ANBCA2; ISSN: 0003-2697
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Procedures are described for the spectrophotometric determination of 1-7 γ furfural, methylfurfural (MF), and (hydroxymethyl)furfural (HMF) per ml. solution by a combination of several methods: direct spectrophotometry, mixing equal vols. of sample solution and 10% PhNH2 in 80% HOAc, and by mixing equal vols. of sample solution and 10% PhNH2 in .apprx.0.9N excess HCl. Absorbances are determined at specified wavelengths, depending upon the type of sample analyzed. ε and λmaximum of furan aldehydes were determined under uniform conditions in 0.001N HCl: furfural, 3.54 + 103 at 229 mμ and 15.375 + 103 at 277 mμ; MF, 2.98 + 103 at 228 mμ and 16.22 + 103 at 291.5 mμ; HMF, 3.605 + 103 at 229 mμ and 16.75 + 103 at 284 mμ. Data were obtained under the same uniform conditions on furfuryl alc. furoic acid, furoin, furil, Me2CO, acetol, methylglyoxal, pyruvic acid, levulinic acid, α-ketoglutaric acid, diacetyl, actylacetone, and acetonylacetone. None of these compds., even if present in equimolar concentration, except furoin

and acetylacetone, interferes significantly in the determination of furan aldehydes. Reductic acid may interfere. At pH 7.4, ε was 20.705 + 103 at λmaximum 281 mμ; in 0.0002-1.0N acid, ε and λmaximum were essentially unchanged, 13.79 + 103 (average) at 263 mμ. Oxidation to dehydroreductic acid completely removes the possible interference. The reaction with 10% PhNH2 in 80% HOAc is highly sensitive for all 3 aldehydes. Furfural gave no absorption peak in the ultraviolet. The reaction with 10% PhNH2 in HCl is also highly sensitive, especially for MF. ε and λmaximum were: for furfural, 7.575 + 103 352 mμ; for MF, 11.75 + 103 at 370 mμ; for HMF, 8.22 + 103 at 363 mμ. A distillation procedure is described for separating furfural and MF from HMF in which 98-99% furfural and MF, and less than 1% HMF, were recovered in the distillate.

```
=> s methionine (s) (cancer or tumor or neoplasm)
         93475 METHIONINE
           545 METHIONINES
         93665 METHIONINE
                  (METHIONINE OR METHIONINES)
        348164 CANCER
         51197 CANCERS
        361109 CANCER
                  (CANCER OR CANCERS)
        440912 TUMOR
        165946 TUMORS
        492219 TUMOR
                  (TUMOR OR TUMORS)
        483382 NEOPLASM
         37012 NEOPLASMS
        500298 NEOPLASM
                  (NEOPLASM OR NEOPLASMS)
L6        1415 METHIONINE (S) (CANCER OR TUMOR OR NEOPLASM)

=> s l6 and derivative
         56250 DERIVATIVE
        352679 DERIVATIVES
        404710 DERIVATIVE
                  (DERIVATIVE OR DERIVATIVES)
        656133 DERIV
       1168486 DERIVS
       1537343 DERIV
                  (DERIV OR DERIVS)
       1642194 DERIVATIVE
                  (DERIVATIVE OR DERIV)
L7         122 L6 AND DERIVATIVE

=> d scan

L7    122 ANSWERS   CAPLUS  COPYRIGHT 2008 ACS on STN
IC   ICM  A61K037-14
INCL 514006000
CC   1-6 (Pharmacology)
     Section cross-reference(s): 63
TI   Method for the inhibition of the proliferation of cancer cells by
     injection into the tumor of a selenodithiol
ST   selenodithiol cancer treatment; selenodiglutathione lung adenocarcinoma
     inhibition; neoplasm inhibitor selenodithiol
IT   Neoplasm inhibitors
        (selenodithiols as)
IT   Lung, neoplasm
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        (adenocarcinoma, inhibitors, selenodithiols)
IT   Neoplasm inhibitors
        (colon adenocarcinoma, selenodithiols)
IT   Intestine, neoplasm
        (colon, adenocarcinoma, inhibitors, selenodithiols)
IT   Thiols, compounds
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (di-, selenium complexes, neoplasm inhibitors)
IT   Neoplasm inhibitors
        (glioma, selenodithiols)
IT   Skin
        (keratinocyte, inhibitors of, selenodithiols as)
IT   Neoplasm inhibitors
        (lung adenocarcinoma, selenodithiols)
IT   Neoplasm inhibitors
        (mammary gland adenocarcinoma, selenodithiols)
IT   Neoplasm inhibitors
        (medulloblastoma, selenodithiols)
IT   Brain, neoplasm
        (medulloblastoma, inhibitors, selenodithiols)
IT   Neoplasm inhibitors
        (melanoma, selenodithiols)
IT   Mammary gland
        (neoplasm, adenocarcinoma, inhibitors, selenodithiols)
IT   Neuroglia
        (neoplasm, inhibitors, selenodithiols)
IT   63-68-3D, L-Methionine, selenium derivs.   7782-49-2D,
     Selenium, methionine derivs.   20710-99-0,
     Selenodicysteine
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (neoplasm inhibitor)
IT   33944-90-0P, Selenodiglutathione
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of, for neoplasm inhibitor)
IT   10102-18-8, Sodium selenite
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with reduced glutathione)
IT   70-18-8D, Glutathione, reduced
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with sodium selenite)

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     FILE 'REGISTRY' ENTERED AT 09:04:24 ON 20 FEB 2008

     FILE 'REGISTRY' ENTERED AT 09:04:55 ON 20 FEB 2008
                E HYDROXYMETHYLFURFURAL
L1            2 S E3
                E ALPHAKETOGLUTARIC
L2            1 S 328-50-7
                E DEHYDROASCORBIC
L3           23 S E3

     FILE 'CAPLUS' ENTERED AT 09:08:09 ON 20 FEB 2008
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L4             1 S (L1 OR HMF OF HYDROXYMETHYLFURFUR?) AND (L2 OR KETOGLUT?) AND
L5            10 S (L1 OR HMF OF HYDROXYMETHYLFURFUR?) AND (L2 OR KETOGLUT?)
L6          1415 S METHIONINE (S) (CANCER OR TUMOR OR NEOPLASM)
L7           122 S L6 AND DERIVATIVE

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 NEWS  3  AUG 06  FSTA enhanced with new thesaurus edition
 NEWS  4  AUG 13  CA/CAplus enhanced with additional kind codes for granted
                  patents
 NEWS  5  AUG 20  CA/CAplus enhanced with CAS indexing in pre-1907 records
 NEWS  6  AUG 27  Full-text patent databases enhanced with predefined
                  patent family display formats from INPADOCDB
 NEWS  7  AUG 27  USPATOLD now available on STN
 NEWS  8  AUG 28  CAS REGISTRY enhanced with additional experimental
                  spectral property data
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                  World Patents Index
 NEWS 10  SEP 13  FORIS renamed to SOFIS
 NEWS 11  SEP 13  INPADOCDB enhanced with monthly SDI frequency
 NEWS 12  SEP 17  CA/CAplus enhanced with printed CA page images from
                  1967-1998
 NEWS 13  SEP 17  CAplus coverage extended to include traditional medicine
                  patents
 NEWS 14  SEP 24  EMBASE, EMBAL, and LEMBASE reloaded with enhancements
 NEWS 15  OCT 02  CA/CAplus enhanced with pre-1907 records from Chemisches
                  Zentralblatt
 NEWS 16  OCT 19  BEILSTEIN updated with new compounds
 NEWS 17  NOV 15  Derwent Indian patent publication number format enhanced
 NEWS 18  NOV 19  WPIX enhanced with XML display format
 NEWS 19  NOV 30  ICSD reloaded with enhancements
 NEWS 20  DEC 04  LINPADOCDB now available on STN
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 NEWS 21  DEC 14  BEILSTEIN pricing structure to change
 NEWS 22  DEC 17  USPATOLD added to additional database clusters
 NEWS 23  DEC 17  IMSDRUGCONF removed from database clusters and STN
 NEWS 24  DEC 17  DGENE now includes more than 10 million sequences
 NEWS 25  DEC 17  TOXCENTER enhanced with 2008 MeSH vocabulary in
                  MEDLINE segment
 NEWS 26  DEC 17  MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
 NEWS 27  DEC 17  CA/CAplus enhanced with new custom IPC display formats
 NEWS 28  DEC 17  STN Viewer enhanced with full-text patent content
                  from USPATOLD
 NEWS 29  JAN 02  STN pricing information for 2008 now available
 NEWS 30  JAN 16  CAS patent coverage enhanced to include exemplified
                  prophetic substances
 NEWS 31  JAN 28  USPATFULL, USPAT2, and USPATOLD enhanced with new
                  custom IPC display formats
 NEWS 32  JAN 28  MARPAT searching enhanced
 NEWS 33  JAN 28  USGENE now provides USPTO sequence data within 3 days
                  of publication
 NEWS 34  JAN 28  TOXCENTER enhanced with reloaded MEDLINE segment
 NEWS 35  JAN 28  MEDLINE and LMEDLINE reloaded with enhancements
 NEWS 36  FEB 08  STN Express, Version 8.3, now available


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              AND CURRENT DISCOVER FILE IS DATED 24 JANUARY 2008

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=> e acetylmethionine
E1          16     ACETYLMETHIONIN/BI
E2          16     ACETYLMETHIONINATO/BI
E3          29 --> ACETYLMETHIONINE/BI
E4          20     ACETYLMETHIONYL/BI
E5          49     ACETYLMETHOXY/BI
E6          32     ACETYLMETHOXYAMINO/BI
E7           1     ACETYLMETHOXYANNOMONTINE/BI
E8           3     ACETYLMETHOXYBIS/BI
E9           1     ACETYLMETHOXYPHENYL/BI
E10          1     ACETYLMETHOXYTYR/BI
E11          1     ACETYLMETHOXYTYRAMINE/BI
E12       5397     ACETYLMETHYL/BI

=> s e3
L1          29 ACETYLMETHIONINE/BI

=> file caplus
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                                                     ENTRY    SESSION
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=> s l1 (s) (cancer or tumor or neoplasm)
          1042 L1
        348164 CANCER
         51197 CANCERS
        361109 CANCER
```

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                (CANCER OR CANCERS)
        440912 TUMOR
        165946 TUMORS
        492219 TUMOR
                (TUMOR OR TUMORS)
        483382 NEOPLASM
         37012 NEOPLASMS
        500298 NEOPLASM
                (NEOPLASM OR NEOPLASMS)
L2           9 L1 (S) (CANCER OR TUMOR OR NEOPLASM)

=> d l2 ibib abs 1-9

L2   ANSWER 1 OF 9  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2007:117791  CAPLUS
DOCUMENT NUMBER:          146:203915
TITLE:                    Gene expression profile for diagnosing small cell lung
                          cancer, discriminating from non-small cell lung
                          cancer, and assessing chemotherapy-resistant lung
                          cancer
INVENTOR(S):              Nakamura, Yusuke; Daigo, Yataro; Nakatsuru, Shuichi
PATENT ASSIGNEE(S):       Oncotherapy Science, Inc., Japan; The University of
                          Tokyo
SOURCE:                   PCT Int. Appl., 215pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
     WO 2007013665         A2    20070201    WO 2006-JP315254        20060726
     WO 2007013665         A3    20070705
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,
             KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN,
             MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU,
             SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG,
             US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA
PRIORITY APPLN. INFO.:                       US 2005-703192P     P  20050727
                                             US 2006-799961P     P  20060511
AB   Methods for detecting and diagnosing small cell lung cancer (SCLC) are
     described.  In one embodiment, the diagnostic method involves determining the
     expression level of an SCLC-associated gene that discriminates between SCLC
     cells and normal cells.  In another embodiment, the diagnostic method
     involves determining the expression level of an SCLC-associated gene that
     distinguishes two major histol. types of lung cancer, i.e., non-small cell
     lung cancer (NSCLC) and SCLC.  Finally, the present invention provides
     methods of screening for therapeutic agents useful in the treatment of
     small cell lung cancer, methods of treating small cell lung cancer, and
     methods for vaccinating a subject against small cell lung cancer.
     Furthermore, the present invention provides chemotherapy-resistant lung
     cancer- or SCLC-associated genes as diagnostic markers and/or mol. targets
     for therapeutic agent for these cancers.  These genes are up-regulated in
     chemoresistant lung cancer or SCLC.  Accordingly, chemoresistant lung
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cancer or SCLC can be predicted using expression level of the genes as diagnostic markers. As the result, any adverse effects caused by ineffective chemotherapy can be avoided, and more suitable and effective therapeutic strategy can be selected.

L2 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:113586 CAPLUS
DOCUMENT NUMBER: 146:226597
TITLE: Gene expression profiles in esophageal cancer and their use in diagnosis, prognosis, therapy and drug design and selection
INVENTOR(S): Nakamura, Yusuke; Daigo, Yataro; Nakatsuru, Shuichi
PATENT ASSIGNEE(S): Oncotherapy Science, Inc., Japan; The University of Tokyo
SOURCE: PCT Int. Appl., 249pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007013671	A2	20070201	WO 2006-JP315342	20060726
WO 2007013671	A3	20070830		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.: US 2005-703263P P 20050727

AB In order to identify the mols. involved in esophageal carcinogenesis and those to be useful for diagnostic markers as well as targets for new drugs and immunotherapy, a cDNA microarray representing 32,256 genes was constructed to analyze the expression profiles of 19 esophageal squamous-cell carcinomas (ESCCS) purified by laser-capture microdissection. A detailed genome-wide database for sets of genes that are significantly up- or down-regulated in esophageal cancer is disclosed herein. These genes find use in the development of therapeutic drugs or immunotherapy as well as tumor markers. Addnl., genes associated with lymph-node metastasis and post-surgery recurrence are disclosed herein. Among the candidate mol. target genes, a Homo sapiens epithelial cell transforming sequence 2 oncogene (ECT2) and a cell division cycle 45, S. cerevisiae, homolog-like (CDC45L) are further characterized. Treatment of ESCC cells with small interfering RNAs (siRNAs) of ECT2 or CDC45L suppressed growth of the cancer cells. Thus, the data herein provide valuable information for identifying diagnostic systems and therapeutic target mols. for esophageal cancer. Furthermore, the present inventors have identified DKK1 as a potential biomarker for diagnosis of cancer such as lung and esophageal cancers as well as prediction of the poor prognosis of the patients with these diseases. DKK1 was specifically over-expressed in most lung and esophageal cancer tissues the present inventors examined, and was elevated in the sera of a large proportion of patients with these tumors. DKK1, combined with other tumor markers, could significantly improve the sensitivity of cancer diagnosis. Moreover, this mol. is also

a likely candidate for development of therapeutic approaches such as antibody therapy.

L2 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:101948 CAPLUS
DOCUMENT NUMBER: 144:190130
TITLE: Genes showing altered expression in non-small cell lung cancers and their use in diagnosis
INVENTOR(S): Nakamura, Yusuke; Daigo, Yataro; Nakatsuru, Shuichi
PATENT ASSIGNEE(S): Oncotherapy Science, Inc., Japan; The University of Tokyo
SOURCE: U.S. Pat. Appl. Publ., 364 pp., Cont.-in-part of Appl. No. PCT/JP04/004075.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006024692	A1	20060202	US 2005-90617	20050324
WO 2004031413	A2	20040415	WO 2003-JP12072	20030922
WO 2004031413	A3	20050224		
WO 2004031413	A9	20050804		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CN 1854313	A	20061101	CN 2006-10073805	20030922
EP 1743947	A2	20070117	EP 2006-22167	20030922
EP 1743947	A3	20070523		
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LI, LU, MC, NL, PT, RO, SE, SI, SK, TR				
WO 2005090991	A1	20050929	WO 2004-JP4075	20040324
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1730533	A1	20061213	EP 2004-723042	20040324
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LI, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
JP 2007530921	T	20071101	JP 2006-529409	20040324

PRIORITY APPLN. INFO.:		
US 2002-414673P	P	20020930
US 2003-451374P	P	20030228
US 2003-466100P	P	20030428
WO 2003-JP312072	A2	20030922
US 2004-555757P	P	20040324
WO 2004-JP4075	A2	20040324

CN 2003-825506	A3	20030922
EP 2003-753941	A3	20030922
US 2004-555789P	P	20040323

AB Genes that show altered levels of expression in non-small-cell lung cancer and that can be used to diagnose the disease are identified. The genes or gene products may also be targets for drugs for treatment of the disease. A group of approx. 1400 genes showing cancer-specific up- or downregulation is identified. Antisense nucleic acids and siRNAs are reported for some of these genes.

L2 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:467738 CAPLUS
DOCUMENT NUMBER: 141:17591
TITLE: Agent having a destructive effect on malignant tumors and method for the production
INVENTOR(S): Groke, Karl; Herwig, Ralf
PATENT ASSIGNEE(S): C.Y.L. Handelsges. m.b.H., Austria; Ferdinand, Peter
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004047832	A1	20040610	WO 2003-EP50712	20031013
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AT 2002001778	A	20040815	AT 2002-1778	20021127
AT 412447	B	20050325		
CA 2507273	A1	20040610	CA 2003-2507273	20031013
AU 2003285351	A1	20040618	AU 2003-285351	20031013
EP 1565176	A1	20050824	EP 2003-778338	20031013
EP 1565176	B1	20060524		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006508998	T	20060316	JP 2004-554531	20031013
AT 326958	T	20060615	AT 2003-778338	20031013
PT 1565176	T	20061031	PT 2003-778338	20031013
ES 2268452	T3	20070316	ES 2003-778338	20031013
US 2006292218	A1	20061228	US 2006-536777	20060907

PRIORITY APPLN. INFO.: AT 2002-1778	A	20021127
EP 2003-778338	A	20031013
WO 2003-EP50712	W	20031013

AB Disclosed is an agent which has a destructive effect on malignant tumors and contains alpha-ketoglutaric acid, N-acetyl-seleno-L-methionine, N-acetyl-L-methionine, and a compound that is capable of forming azomethine and is selected among the group 5-hydroxymethylfurfural, dehydroascorbic acid, maltol, and vanillin as an active substance, 5-hydroxymethylfurfural being preferred. The inventive agent can be used in the form of an infusion, in an oral or rectal form of administration, or as an irrigation in cancer therapy. The treatment of cancer patients with the following infusion solution is reported: α-ketoglutaric acid 9.0 g/L;

5-hydroxymethyl furfural 3.0 g/L; N-acetyl-seleno-L-methionine 2.0 mg/L; N-acetyl-L-methionine 100.00 mg/L; glucose 30.0 g/L; sodium and potassium ions to set pH.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:189901 CAPLUS
DOCUMENT NUMBER: 131:4137
TITLE: Identification of a second major tumor-specific antigen recognized by CTLs on mouse mastocytoma P815
AUTHOR(S): Bilsborough, Janine; Van Pel, Aline; Uyttenhove, Catherine; Boon, Thierry; Van den Eynde, Benoit J.
CORPORATE SOURCE: Ludwig Institute for Cancer Research, Universite Catholique de Louvain, Brussels, Belg.
SOURCE: Journal of Immunology (1999), 162(6), 3534-3540
CODEN: JOIMA3; ISSN: 0022-1767
PUBLISHER: American Association of Immunologists
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Murine mastocytoma P815 induces CTL responses against at least four distinct Ags (AB, C, D, and E). Recent studies have shown that the main component of the CTL response against the P815 tumor is targeted against Ags P815AB and P815E. The gene P1A has been well characterized. It encodes the P815AB Ag in the form of a nonameric peptide containing two epitopes, P815A and P815B, which are recognized by different CTLs. Here, the authors report the identification of the P815E Ag. Using a cDNA library derived from tumor P815, the authors identified the gene coding for P815E. The authors also characterized the antigenic peptide that anti-P815E CTLs recognize on the MHC class I mol. H-2Kd. The P815E Ag results from a mutation within an ubiquitously expressed gene encoding methionine sulfoxide reductase, an enzyme that is believed to be important in the protection of proteins against the byproducts of aerobic metabolism Surprisingly, immunizing mice i.p. with syngeneic tumor cells (L1210) that were constructed to express B7-1 and P815E did not induce resistance against live P815, even though a strong anti-P815E CTL response was observed with splenocytes from immunized animals.
REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1989:406348 CAPLUS
DOCUMENT NUMBER: 111:6348
TITLE: The effects of dietary alterations of L-arginine, L-methionine, and N-acetyl-L-methionine on the growth of Morris hepatoma #3924A and tumor polyamine levels
AUTHOR(S): Diya, Cornelius Adeniyi
CORPORATE SOURCE: Howard Univ., Washington, DC, USA
SOURCE: (1987) 240 pp. Avail.: Univ. Microfilms Int., Order No. DA8809013
From: Diss. Abstr. Int. B 1989, 49(7), 2573
DOCUMENT TYPE: Dissertation
LANGUAGE: English
AB Unavailable

L2 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1979:570855 CAPLUS
DOCUMENT NUMBER: 91:170855
ORIGINAL REFERENCE NO.: 91:27549a,27552a
TITLE: Pharmacokinetics of 99mTc-acetylmethionine in tumor-bearing animals
AUTHOR(S): Khachirov, D. G.; Petriev, V. M.; Savin, Yu. I.;

Prikhod'ko, A. G.
CORPORATE SOURCE: Nauchno-Issled. Inst. Med. Radiol., Obninsk, USSR
SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1979), 13(8), 33-5
CODEN: KHFZAN; ISSN: 0023-1134
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Administration of 99mTc-labeled N-acetyl-DL-methionine (I) (100-50 μCi i.v.) to rats with exptl. induced muscle sarcomas resulted in the accumulation of 99mTc in different organs and tissues for 24 h. The highest accumulation occurred in the liver and kidneys. The 99mTc level in the neoplastic muscles was higher than in the healthy muscles; however, the difference was not statistically significant to justify the use of I for neoplasm scintigraphy. Similar results were obtained with Na99mTcO4, but the rate of accumulation of the label in the tissues was markedly lower than with I.

L2 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1961:14595 CAPLUS
DOCUMENT NUMBER: 55:14595
ORIGINAL REFERENCE NO.: 55:2900i,2901a
TITLE: Feeding of surface-active substances and effect on infections
AUTHOR(S): Borneff, J.
SOURCE: Archiv fuer Hygiene und Bakteriologie (1957), 141, 578-95
From: C.Z. 1958, 10135.
CODEN: AHBAAM; ISSN: 0003-9144
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Hostapon (I) and Pril (II), surface-active materials, were given to guinea pigs and mice. I was given in high dose, II in normal dose corresponding to a possible human dose. No toxic effects were found at a level of 325 mg./kg./day, and no effect was found on enteral bacterial flora. Harmful effects were found only with concurrent streptococcal infection and treatment with I or II.

L2 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1961:14594 CAPLUS
DOCUMENT NUMBER: 55:14594
ORIGINAL REFERENCE NO.: 55:2900h-i
TITLE: Antitumor effect of amino acid analogs
AUTHOR(S): Abe, Mihoko; Chibata, Ichiro; Hirokawa, Hideo; Kameda, Yukio; Mizuno, Denichi
SOURCE: Yakugaku Zasshi (1960), 80, 1309-11
CODEN: YKKZAJ; ISSN: 0031-6903
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Some methionine analogs which had a marked effect against the solid type Ehrlich ascites carcinoma in mice included L-RCH(NHCOCH2Cl)CO2H (R = MeSCH2CH2); RCH(NHCOCHCl2)CO2H; RCH(NHAc)CN; RCH(NHCOCH2Cl)CN; RCH(NHCOCH2NH2.HCl)CN; EtSCH2CH2CH(NH2.1/2H2SO4)CN; EtSCH2CH2CH(NHCOCH2Cl)CN.

=> file caplus embase biosis medline

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	32.77	38.59

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-6.40	-6.40

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FILE 'MEDLINE' ENTERED AT 09:30:48 ON 20 FEB 2008

=> s (seleno methionine or acetylmethionine) and (tumor or cancer or neoplasm)
L3          91 (SELENO METHIONINE OR ACETYLMETHIONINE) AND (TUMOR OR CANCER OR
               NEOPLASM)

=> dup rem
ENTER L# LIST OR (END):l3
PROCESSING COMPLETED FOR L3
L4           81 DUP REM L3 (10 DUPLICATES REMOVED)

=> s l4 and py<=2003
L5          72 L4 AND PY<=2003

=> d l5 ibib abs 1-10

L5   ANSWER 1 OF 72  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:        2004:704723  CAPLUS
DOCUMENT NUMBER:         141:349159
TITLE:                   Method for producing selenium-containing cow or goat
                         milk
INVENTOR(S):             Jeng, Chang-yi
PATENT ASSIGNEE(S):      Taiwan
SOURCE:                  Taiwan., 4 pp.
                         CODEN: TWXXA5
DOCUMENT TYPE:           Patent
LANGUAGE:                Chinese
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
     TW 565432            B     20031211    TW 1999-88114467       19990824 <--
PRIORITY APPLN. INFO.:                      TW 1999-88114467       19990824
AB   A method for producing Selenium-containing cow or goat milk comprises adding
     an organic selenium (seleno-methionine or yeast selenium)
     into the feedstuff of dairy cattle or goat in order to produce the
     selenium-containing cow or goat milk without affecting its milk output and
     quality, as well as the health status of the cow or goat.  Such a
     selenium-containing cow or goat milk can increase the immunity, spirit, and
     anti-cancer ability of a human body.

L5   ANSWER 2 OF 72  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:        1996:694251  CAPLUS
DOCUMENT NUMBER:         125:326402
TITLE:                   An immunoreactive conjugate, method for its
                         preparation, antibodies to the conjugate and a
                         pharmaceutical composition and diagnostic device
                         containing them
INVENTOR(S):             Maes, Roland
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PATENT ASSIGNEE(S): Anda Biologicals S.A., Fr.
SOURCE: Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 736770	A2	19961009	EP 1996-870042	19960401 <--
EP 736770	A3	19970502		
R: BE, DE, FR, GB, IT				
BE 1009230	A6	19970107	BE 1995-316	19950405 <--
BE 1009917	A6	19971104	BE 1996-113	19960208 <--
PRIORITY APPLN. INFO.:			BE 1995-316 A	19950405
			BE 1996-113 A	19960208

AB An immunoreactive conjugate is disclosed which contains 1 or more haptens consisting of a sulfhydryl group and one of the following: amino acids, carbohydrates, amino carbohydrates, phosphatidylinositol, sphingosine, and their nitrosyl, acyl, or acetyl derivs., the haptens being coupled to a protein with a mol. weight >8000 Kd and/or a solid support by a coupling agent capable of binding to the sulfhydryl group of the hapten. Thus, NO-cysteine and NO-N-acetyl-L-cysteine conjugates with albumin were prepared, and birds and mammals were vaccinated. IgG and IgM class antibodies specific for N-acetyl-L-cysteine were detected in the subjects. Addnl. analyses demonstrated that many HIV-pos. patients have IgG specific for acetyl-cysteine. Pharmaceutical compns. using these immunoreactive conjugates can be used in the prevention and/or treatment of autoimmunity, AIDS, cancer, tuberculosis and a variety of other diseases.

L5 ANSWER 3 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:357099 CAPLUS
DOCUMENT NUMBER: 125:26237
TITLE: Antiviral drugs and immunomodulators containing chelate-forming agents
INVENTOR(S): Bacanu, Serban Al; Ionescu, Iulian; Sarzea, Sorin; Tomas, Stefan Teodor
PATENT ASSIGNEE(S): Medico Pharma Vertriebs Gmbh, Germany; Sicomed S.A.
SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9606639	A2	19960307	WO 1995-EP3426	19950831 <--
WO 9606639	A3	19960725		
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, UA, UG, US, UZ, VN, BE, FR, GR, IE, IT, MC, NL, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG, SZ				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
DE 4431175	A1	19960411	DE 1994-4431175	19940901 <--
AU 9535194	A	19960322	AU 1995-35194	19950831 <--
PRIORITY APPLN. INFO.:			DE 1994-4431175 A	19940901
			WO 1995-EP3426 W	19950831

AB Combinations of chelate-forming agents and essential amino acids or their derivs. which are optionally complexed with bivalent metal ions are useful as antiviral agents, immunomodulators for treatment of autoimmune diseases, anticancer agents, and drugs for treatment of neurodegenerative diseases. Thus, Rodilemid (CaNa2EDTA/cysteine/Ca gluconate combination) (625 μg/mL) strongly inhibited HIV-1 in cultured MT-4 cells without inhibiting cell growth.

L5 ANSWER 4 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1989:406348 CAPLUS
DOCUMENT NUMBER: 111:6348
TITLE: The effects of dietary alterations of L-arginine, L-methionine, and N-acetyl-L-methionine on the growth of Morris hepatoma #3924A and tumor polyamine levels
AUTHOR(S): Diya, Cornelius Adeniyi
CORPORATE SOURCE: Howard Univ., Washington, DC, USA
SOURCE: (1987) 240 pp. Avail.: Univ. Microfilms Int., Order No. DA8809013
From: Diss. Abstr. Int. B 1989, 49(7), 2573
DOCUMENT TYPE: Dissertation
LANGUAGE: English
AB Unavailable

L5 ANSWER 5 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1989:225835 CAPLUS
DOCUMENT NUMBER: 110:225835
TITLE: The in vitro growth response of primary human colorectal and gastric cancer cells to gastrin
AUTHOR(S): Watson, S. A.; Durrant, L. G.; Crosbie, J. D.; Morris, D. L.
CORPORATE SOURCE: Cancer Res. Campaign Lab., Univ. Nottingham, Nottingham, NG7 2RD, UK
SOURCE: International Journal of Cancer (1989), 43(4), 692-6
CODEN: IJCNAW; ISSN: 0020-7136
DOCUMENT TYPE: Journal
LANGUAGE: English
AB When a series of 31 colorectal and 13 gastric primary human tumors were screened for their growth response to human gastrin-17 in vitro, as assessed by 75Se-seleno-methionine incorporation, 55% of colorectal and 69% of gastric tumors showed a trophic response to the hormone. The responses were achieved at physiol. gastrin concs. (post-prandial circulating gastrin levels) in 35% of colorectal and 55% of gastric tumors. Lymphocytes from tumor-associated lymph nodes showed no response to the hormone and normal mucosal cells (obtained from the resection margin of the surgical specimen) showed lower mean levels of 75Se-seleno-methionine uptake (colorectal: 110%; gastric: 119%, expressed as a percentage of the control) when compared to tumors (colorectal: 151%; gastric: 147%). The small number of well differentiated and/or Dukes' stage A colorectal tumors examined were gastrin-responsive, but all the responsive gastric tumors were poorly differentiated. With respect to ploidy, 89% of diploid and 67% of aneuploid colorectal tumors responded trophically to gastrin. Patients with colorectal or gastric tumors may benefit from treatment with gastrin antagonists.

L5 ANSWER 6 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1988:542107 CAPLUS
DOCUMENT NUMBER: 109:142107

TITLE: Nitrogen-14 NMR studies of amine release from platinum anticancer drugs: models and human blood plasma
AUTHOR(S): Norman, Richard E.; Sadler, Peter J.
CORPORATE SOURCE: Dep. Chem., Birkbeck Coll., London, WC1E 6BT, UK
SOURCE: Inorganic Chemistry (1988), 27(20), 3583-7
CODEN: INOCAJ; ISSN: 0020-1669
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The feasibility of using 14N{1H} NMR spectroscopy to follow reactions of Pt(II) antitumor drugs under biol. relevant conditions has been investigated. Amine release from cis-PtCl2(NH3)2 upon reaction with both L-methionine and N-acetyl-L-methionine and from PtCl2(1,2-diaminoethane) on reaction with L-methionine in aqueous solution can be readily detected. Upon incubation (37° for 24 h) of cis-PtCl2(NH3)2 with human blood plasma supplemented with L-methionine, at least one NH3 ligand appears to be lost. Ammonia release is also detected upon addition of excess sodium diethyldithiocarbamate (an agent used clin. to reverse cisplatin toxicity) to plasma incubated with cis-PtCl2(NH3)2 (37° for 2 h). Other 14N peaks assigned in plasma spectra include those for amides, phosphatidylcholines, and N2. Thus, 14N NMR spectroscopy provides a useful probe for studying these drugs at millimolar concns. under conditions that approach physiol. relevance.

L5 ANSWER 7 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1979:570855 CAPLUS
DOCUMENT NUMBER: 91:170855
ORIGINAL REFERENCE NO.: 91:27549a,27552a
TITLE: Pharmacokinetics of 99mTc-acetylmethionine in tumor-bearing animals
AUTHOR(S): Khachirov, D. G.; Petriev, V. M.; Savin, Yu. I.; Prikhod'ko, A. G.
CORPORATE SOURCE: Nauchno-Issled. Inst. Med. Radiol., Obninsk, USSR
SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1979), 13(8), 33-5
CODEN: KHFZAN; ISSN: 0023-1134
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Administration of 99mTc-labeled N-acetyl-DL-methionine (I) (100-50 μCi i.v.) to rats with exptl. induced muscle sarcomas resulted in the accumulation of 99mTc in different organs and tissues for 24 h. The highest accumulation occurred in the liver and kidneys. The 99mTc level in the neoplastic muscles was higher than in the healthy muscles; however, the difference was not statistically significant to justify the use of I for neoplasm scintigraphy. Similar results were obtained with Na99mTcO4, but the rate of accumulation of the label in the tissues was markedly lower than with I.

L5 ANSWER 8 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1972:72791 CAPLUS
DOCUMENT NUMBER: 76:72791
ORIGINAL REFERENCE NO.: 76:11729a,11732a
TITLE: Selenomethionine-75Se
PATENT ASSIGNEE(S): Nederlandse Organisatie voor Toegepast-Natuurwetenschappelijk Onderzoek ten behoeve van Nijverheid, Handel en Verkeer
SOURCE: Fr., 7 pp.
CODEN: FRXXAK
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2052454	A5	19710409	FR 1970-19520	19700528 <--
NL 6908609	A	19701208	NL 1969-8609	19690606 <--
NL 163210	C	19800815		
NO 133272	B	19751229	NO 1970-2108	19700601 <--
DE 2065906	A1	19770120	DE 1970-2065906	19700602 <--
DE 2065906	C2	19820429		
JP 49020184	B	19740523	JP 1970-47882	19700603 <--
IT 1004513	B	19760720	IT 1970-68885	19700603 <--
GB 1281293	A	19720712	GB 1970-1281293	19700604 <--
SE 373128	B	19750127	SE 1970-7796	19700604 <--
BE 751531	A	19701207	BE 1970-751531	19700605 <--
CH 546713	A	19740315	CH 1970-8500	19700605 <--
CH 549542	A	19740531	CH 1973-13859	19700605 <--
AT 303060	B	19721110	AT 1970-5120	19700608 <--
US 3898276	A	19750805	US 1973-406583	19731015 <--
PRIORITY APPLN. INFO.:			NL 1969-8609 A	19690606
			US 1970-41444 A2	19700528

AB The title compound (I) is prepared by a 5-step synthesis. Thus, radioactive 75Se is reacted with MeLi in THF at -5° under N and the MeSiLi decomposed with 50% H2SO4 to give MeSeH in 90% yield. MeSeH is treated with NaOMe in MeOH and then with bis-(chloroethyl)dioxopiperazine for 2 hr at 50°. Hydrolysis and acidification gives a 50% yield of product. L-Bis(bromoethyl)-dioxopiperazine may also be used to give L-selenomethionine-75Se. The compds. are used in medicine to locate tumors.

L5 ANSWER 9 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1971:436607 CAPLUS
DOCUMENT NUMBER: 75:36607
ORIGINAL REFERENCE NO.: 75:5801a,5804a
TITLE: Data on the chemical structure and biological activity of hydrazides and hydrazones in a series of natural amino acids
AUTHOR(S): Khvorova, N. M.; Pushkareva, Z. V.; Radina, L. B.; Volovel'skii, L. N.; Sof'ina, Z. P.; Aglitskaya, K. V.
CORPORATE SOURCE: Ural. Politekh. Inst., Sverdlovsk, USSR
SOURCE: Puti Sinteza i Izyskaniya Protivoopukholevykh Preparatov (1970), Volume Date 1968, No. 3, 113-20
CODEN: PSIPA4; ISSN: 0370-1913
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB RCH(NHAc)CONHN:CHR1, (I) (R = PhCH2, p-HOC6H4CH2, MeS(CH2)2, R1CH:NNHCO(CH2)2, or indol-3-ylmethyl; R1 = 3,4-(HO)2C6H3 or 3,4-HO2C(HO)C6H3) exist in solution and in the solid state as hydrazones and not as azo forms. I (same R; R1 = gluco-pentahydroxypentyl or ribo-tetrahydroxybutyl) exist in the solid state in the pyranose or furanose form, but in solution an equilibrium exists with the acyclic form. Moderate antitumor properties were shown by the [p-[bis(β-chloroethyl)amino]benzylidene]hydrazide of N-acetyltryptophan and by the glucosylidenehydrazides of N-acetylmethionine and glutamic acid.

L5 ANSWER 10 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1961:44317 CAPLUS
DOCUMENT NUMBER: 55:44317
ORIGINAL REFERENCE NO.: 55:8609c-e
TITLE: Acylase activity in the liver of rats fed 4-dimethylaminoazobenzene
AUTHOR(S): Kishi, Sanji; Haruno, Katsuhiko; Asano, Bunichi

CORPORATE SOURCE: Showa Med. School, Tokyo
SOURCE: Gann (1960), 51, 235-41
CODEN: GANNA2; ISSN: 0016-450X
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Activity of acylase in the liver of rats fed 4-dimethylaminoazobenzene (DAB) was measured by using as substrates acetanilide (AA), diacetyl-L-tyrosine (DAT), and acetylmethionine (AM). Activity of acylase for AA in the slightly cirrhotic liver was higher than that in normal liver, and even a severe case showed nearly the normal value, whereas the activity in hepatoma was scarcely detected. When DAT was used for acylase test, pathol. changed livers, including hepatoma, showed higher activity than normal liver. Acylase activity on AM was slightly higher than normal in the pathol. but noncancerous livers. Hepatoma showed 60% of the normal value. The liver of DAB-treated rats in the 4th week of experiment showed higher activity than normal when tested with AA, DAT, or AM. With regenerating liver the activity diminished to about half that of the excised portion of the same liver.

=> d l5 ibib abs 11-72

L5 ANSWER 11 OF 72 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2002323559 EMBASE
TITLE: L-methionine inhibits reaction of DNA with anticancer cis-diamminedichloroplatinum(II).
AUTHOR: Vrana O.; Brabec V.
CORPORATE SOURCE: V. Brabec, Institute of Biophysics, Acad. of Sci. of the Czech Republic, Kralovopolska 135, CZ-61265 Brno, Czech Republic. brabec@ibp.cz
SOURCE: Biochemistry, (Sep 2002) Vol. 41, No. 36, pp. 10994-10999.
Refs: 22
ISSN: 0006-2960 CODEN: BICHAW
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
030 Clinical and Experimental Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 10 Oct 2002
Last Updated on STN: 10 Oct 2002
AB Sufficient evidence has accumulated to identify DNA as the relevant pharmacological target of antitumor cisplatin [cis-diamminedichloroplatinum(II)]. This drug is administered intravenously so that before it reaches DNA in the nucleus of tumor cells it may interact with various compounds including sulfur-containing molecules such as L-methionine or the compounds containing these residues. L-Methionine increases the rate of reaction of cisplatin with monomeric guanosine 5'-monophosphate, and it was suggested on the basis of these results previously obtained by other authors that methionine residues could mediate the transfer of platinum onto DNA. We studied in the present work the reactions of the 1:1 complex formed between cisplatin and L-methionine or N-acetyl-L-methionine with synthetic, single- and double-stranded oligodeoxyribonucleotides and natural, high molecular mass DNA by using high-pressure liquid chromatography and flameless atomic absorption spectrophotometry. The results demonstrate that both L-methionine and N-acetyl-L-methionine decrease the rate of reaction of cisplatin with base residues in natural, high molecular mass DNA. Thus, the possibility that cisplatin bound to methionine residues serves as a drug reservoir available for platination of DNA in the nucleus of tumor cells

appears unlikely.

L5 ANSWER 12 OF 72 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2002079739 EMBASE
TITLE: Cystathionine pathway-dependent cytotoxicities of diethyl maleate and diamide in rat and human hepatoma-derived cell cultures.
AUTHOR: Dierickx P.J.; De Beer J.O.; Scheers E.M.
CORPORATE SOURCE: P.J. Dierickx, Lab. Biochemische Toxikologie, Instituut voor Volksgezondheid, Afdeling Toxikologie, Wytsmanstraat 14, 1050 Brussels, Belgium
SOURCE: ATLA Alternatives to Laboratory Animals, (2002) Vol. 30, No. 1, pp. 61-68.
Refs: 19
ISSN: 0261-1929 CODEN: AALADQ
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 005 General Pathology and Pathological Anatomy
052 Toxicology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 14 Mar 2002
Last Updated on STN: 14 Mar 2002

AB Glutathione (GSH) plays a role in many toxicologically important metabolic processes. It was previously established that L-buthionine S,R-sulphoximine (BSO), a specific inhibitor of γ-glutamylcysteine synthetase, reduces the GSH content more efficiently in rat (Fa32) than in human (Hep G2) hepatoma-derived cells. We therefore investigated whether the cystathionase inhibitor propargylglycine (PPG) could further decrease the BSO-induced GSH depletion in Hep G2 cells. The influence of the cystathionine precursors N-acetylmethionine, methionine and homocysteine on the cytotoxicity of diethyl maleate (DEM) and diamide [1,1'-azobis(N,N-dimethylformamide)] was also investigated. PPG reduced the GSH content in both cell lines. A further GSH decrease in Hep G2 was obtained when using a BSO + PPG combination containing relatively high concentrations of PPG. BSO diminished the toxicity of PPG. Homocysteine was the most efficacious of the tested cystathionine precursors in increasing the GSH content and reducing the cytotoxicity of DEM and diamide in Fa32 and Hep G2 cells.

L5 ANSWER 13 OF 72 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2001435049 EMBASE
TITLE: Gene expression profiling of low selenium status in the mouse intestine: Transcriptional activation of genes linked to DNA damage, cell cycle control and oxidative stress.
AUTHOR: Rao L.; Puschner B.; Prolla T.A.
CORPORATE SOURCE: T.A. Prolla, Department of Genetics, University of Wisconsin-Madison, Madison, WI 53706, United States. taprolla@facstaff.wisc.edu
SOURCE: Journal of Nutrition, (2001) Vol. 131, No. 12, pp. 3175-3181.
Refs: 55
ISSN: 0022-3166 CODEN: JONUAI
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical and Experimental Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 3 Jan 2002
Last Updated on STN: 3 Jan 2002

AB The essential trace mineral selenium (Se) has been shown previously to inhibit intestinal, prostate, lung and liver tumor development and associated mortality in both experimental animals and humans. Although Se is likely to be one of the most powerful cancer chemopreventive agents in the human diet, its mechanism of action is unknown. To better understand the biological consequences of alterations in Se status, the gene expression profile associated with low Se status in the intestine of C57BI/6J mice was analyzed. Mice were fed either a high fat (14%), torula yeast-based, Se-deficient diet (<0.01 mg/kg) or the same diet supplemented with a high level of dietary Se (1 mg/kg, as seleno-methionine) for 90 d. Use of high density oligonucleotide arrays representing 6347 genes revealed that low Se status results in a differential gene expression pattern indicative of activation of genes involved in DNA damage, oxidative stress and cell cycle control, and a decrease in the expression of genes involved in detoxification. These results suggest that suboptimal intake of a single trace mineral can have broad effects on gene expression patterns, providing a framework for understanding the multiple beneficial effects of Se in cancer chemoprevention and human health.

L5 ANSWER 14 OF 72 EMBASE

ACCESSION NUMBER: 1998251087 EMBASE

TITLE: Growth inhibition of subcutaneously transplanted hepatomas without cachexia by alteration of the dietary arginine-methionine balance.

AUTHOR: Millis R.M.; Diya C.A.; Reynolds M.E.; Dehkordi O.; Bond Jr. V.

CORPORATE SOURCE: Dr. R.M. Millis, Dept. of Physiology and Biophysics, Howard Univ. College of Medicine, Washington, DC 20059, United States

SOURCE: Nutrition and Cancer, (1998) Vol. 31, No. 1, pp. 49-55. Refs: 45
ISSN: 0163-5581 CODEN: NUCADQ

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 016 Cancer
029 Clinical and Experimental Biochemistry
048 Gastroenterology

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 14 Aug 1998
Last Updated on STN: 14 Aug 1998

AB Previous studies have shown that alteration of the dietary arginine-methionine balance by use of synthetic L-amino acids inhibits tumor growth of a subcutaneously transplanted Morris hepatoma at the expense of maintaining body weight. However, L-methionine is susceptible to degradation and, therefore, may contribute to a deficiency state. The present studies were performed to determine whether growth of subcutaneous hepatoma transplants is inhibited, and body growth maintained, when rats are fed diets containing L- methionine in replacement of N-acetyl-L-methionine (NALM) for 28 days. Tumor-free and tumor-bearing rats fed a control diet, with amino acids replacing protein, had gains in body weight: 31.3 ± 1.0 and 19.1 ± 0.5 g (12% and 7%), respectively. Rats fed six experimental diets, with varying L-arginine- NALM balances, had body weight gains ranging from 18.4 ± 0.3 to 26.7 ± 0.9 g (7-10%). Tumor weight of control rats was 10.65 ± 0.24% of body weight. Diets supplemented with L-arginine in combination with normal and deficient NALM decreased tumor weights by 35% and 38%, respectively. It is concluded that dietary replacement of L-methionine with NALM and supplementation with L-arginine inhibits growth of a subcutaneously transplanted Morris

hepatoma in the absence of cachexia.

L5 ANSWER 15 OF 72 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 1990082535 EMBASE
TITLE: Thiol and thioether suppression of cis-platinum-induced nephrotoxicity in rats bearing the Walker 256 carcinosarcoma.
AUTHOR: Jones M.M.; Basinger M.A.
CORPORATE SOURCE: Dr. M.M. Jones, Department of Chemistry, Box 1583, Vanderbilt University, Nashville, TN 37235, United States
SOURCE: Anticancer Research, (1989) Vol. 9, No. 6, pp. 1937-1942. ISSN: 0250-7005 CODEN: ANTRD4
COUNTRY: Greece
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
028 Urology and Nephrology
030 Clinical and Experimental Pharmacology
037 Drug Literature Index
052 Toxicology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 13 Dec 1991
Last Updated on STN: 13 Dec 1991
AB An examination of eighteen thiols and thio ethers revealed that the simultaneous administration of several of these with cis-platinum (CDDP) at 7.5 mg/kg (25 μmol/kg) iv, as a single injection to rats bearing the Walker 256 carcinosarcoma led to significant reduction in the nephrotoxicity typically found with cis-platinum, and no apparent interference in its anti-neoplastic action towards this tumor. The thiols and thiol ethers were administered at a twenty-fold molar excess to the CDDP and were combined with the CDDP immediately prior to administration. The most effective compounds in suppression nephrotoxicity were D-, and L-methionine, methyl and ethyl L-methioninate, and N-acetyl-D, L-methionine.

L5 ANSWER 16 OF 72 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 1976189679 EMBASE
TITLE: The reactivity and carcinogenicity of aflatoxin B(1) 2,3 dichloride, a model for the putative 2,3 oxide metabolite of aflatoxin B(1).
AUTHOR: Swenson D.H.; Miller J.A.; Miller E.C.
CORPORATE SOURCE: McArdle Lab. Cancer Res., Univ. Wisconsin Cent. Hlth Sci., Madison, Wis. 53706, United States
SOURCE: Cancer Research, (1975) Vol. 35, No. 12, pp. 3811-3823. ISSN: 0008-5472 CODEN: CNREA8
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
030 Clinical and Experimental Pharmacology
037 Drug Literature Index
005 General Pathology and Pathological Anatomy
LANGUAGE: English
AB Aflatoxin B(1) 2,3 dichloride (AFB(1) Cl(2)) was synthesized as a model for the probable ultimate carcinogen, aflatoxin B(1) 2,3 oxide. As expected for aflatoxin B(1) 2,3 oxide, AFB(1) Cl(2) has an electrophilic carbon 2; it decomposed in water (half life of 0.5 min in 10% dimethyl sulfoxide, pH 7.4) with the formation of 3 chloro 2,3 dihydro 2 hydroxyaflatoxin B(1) and 2,3 dihydro 2,3 dihydroxyaflatoxin B(1). AFB(1) Cl(2) formed covalent adducts with DNA and RNA with retention of one half of the chlorine; the major products apparently contained glycosidic bonds between carbon 2 of the aflatoxin residues and nitrogen or oxygen atoms in

the nucleic acids. Polyguanylic acid was the most reactive homopolymer toward AFB(1) Cl(2). AFB(1) Cl(2) was less reactive toward mononucleotides than toward polynucleotides. The major adducts formed on incubation of AFB(1) Cl(2) with protein contained little chlorine and could have resulted from alkylation of primary amino groups or from reactions with the hydrolysis products. Similarly, incubation of AFB(1) Cl(2) with amino acids apparently resulted in Schiff base formation between primary amino groups and the dialdehyde rearrangement forms of the hydrolysis products of AFB(1) Cl(2). AFB(1) Cl(2) was much more active than aflatoxin B(1) in inducing sarcomas at the s.c. injection site in rats, in the initiation of papillomas on the skin of mice, and in the induction of lung tumors in mice. AFB(1) Cl(2) was also highly mutagenic for Salmonella typhimurium TA 98 and TA 100. Aflatoxin B(1) and its 2,3, dihydro (aflatoxin B(2)), 2,3 dihydro 2 hydroxy (aflatoxin B(2)), 2,3 dihydro 2,3 dihydroxy, and 3 chloro 2,3 dihydro 2 hydroxy derivatives were inactive in the mutagenicity tests; and the latter four compounds were also inactive as initiators of papillomas of the skin in mice. The structures of the macromolecular adducts of AFB(1) Cl(2) formed in vitro, the carcinogenicity of this electrophile, and the lack of carcinogenicity of its hydrolysis products indicate that alkylation of nucleic acids is a critical reaction in tumor induction with this carcinogen and aflatoxin B(1).

L5 ANSWER 17 OF 72 EMBASE

ACCESSION NUMBER: 1976041074 EMBASE
TITLE: Diagnosis of primary hepatocellular carcinoma with (99)Tc(m) acetylmethionine (Japanese).
AUTHOR: Kusakabe K.; Yamasaki T.; Ono Y.; et. al.
CORPORATE SOURCE: Dept. Radiol., Tokyo Women's Med. Coll., Tokyo, Japan
SOURCE: Kakuigaku, (1975) Vol. 12, No. 1, pp. 43-47.
ISSN: 0022-7854 CODEN: KAIGBZ
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
023 Nuclear Medicine
030 Clinical and Experimental Pharmacology
037 Drug Literature Index
LANGUAGE: Japanese
AB Since October, 1971 when the authors observed a high concentration of (75)Se selenomethionine in the tumor of a patient with hepatocellular carcinoma, they have been employing this radiopharmaceutical for differential diagnosis of conditions of the liver. However, one of the major problems is the long physical half time of the (75)Se. Methionine could be labeled with (99)(m)Tc by modification of Holan's method, with excellent yields and good liver tumor scanning results. The yield of labeling is in the range of 75 to 80%. In a patient with primary hepatocellular carcinoma, accumulation of the (99)(m)Tc methionine in the defect observed with radiocolloid scan was seen, and in a patient with metastatic liver cancer, accumulation was not seen. Scanning was started not later than 3 hours after injection, because the (99)(m)Tc label is released from the methionine and gradually disappears from the liver through the urinary system.

L5 ANSWER 18 OF 72 EMBASE

ACCESSION NUMBER: 1975198210 EMBASE
TITLE: Seleno methionine 75 as a scanning agent for neuroblastoma.
AUTHOR: Covington E.E.; D'Angio G.J.; Helson andRomano L.R.W.
CORPORATE SOURCE: Nucl. Med. Serv., Dept. Med., Mem. Sloan Kettering Cancer Cent., New York, N.Y. 10021, United States

SOURCE: Clinical Bulletin, (1974) Vol. 4, No. 4, pp. 147-150.
CODEN: CLBUAU
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
023 Nuclear Medicine
007 Pediatrics and Pediatric Surgery
008 Neurology and Neurosurgery
LANGUAGE: English
AB Neuroblastoma is a functioning tumor and patients with this tumor are known to excrete vanilmandelic acid and other degradation products of norepinephrine. It also accumulates and produces excess cystathionine for which methionine is a precursor in the normal anabolic pathway. This was the rationale for testing [(75)Se] methionine as a possible scanning agent in patients with neuroblastoma. The results of a preliminary investigation in which 3 of 4 patients with neuroblastoma, all with known metastases of the skull, had positive scans correctly localizing the disease. The preliminary data seemed encouraging, and further investigation was undertaken. The results are reported here.

L5 ANSWER 19 OF 72 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 1975023620 EMBASE
TITLE: Inhibition of carcinogenic and toxic effects of polycyclic hydrocarbons by several sulfur containing compounds.
AUTHOR: Wattenberg L.W.
CORPORATE SOURCE: Dept. Pathol., Univ. Minnesota Med. Sch., Minneapolis, Minn. 55455, United States
SOURCE: Journal of the National Cancer Institute, (1974) Vol. 52, No. 5, pp. 1583-1587.
ISSN: 0027-8874 CODEN: JNCIAM
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
037 Drug Literature Index
046 Environmental Health and Pollution Control
LANGUAGE: English
AB Disulfiram, dimethyldithiocarbamate, and benzyl thiocyanate, when added to the diet, inhibited 7,12 dimethylbenz(a)anthracene (DMBA) induced mammary tumor formation and adrenal necrosis in female Sprague Dawley rats. A single oral administration of disulfiram given 24 hours before the carcinogen similarly inhibited DMBA induced mammary tumor formation. In the mouse, disulfiram prevented the occurrence of tumors of the forestomach that resulted from benzo(a)pyrene in the diet but did not affect pulmonary adenoma formation in mice given this carcinogen by oral intubation.

L5 ANSWER 20 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 2001:170106 BIOSIS
DOCUMENT NUMBER: PREV200100170106
TITLE: Method and composition to reduce cancer incidence.
AUTHOR(S): Passwater, Richard A. [Inventor, Reprint author]; Olson, David M. [Inventor]
CORPORATE SOURCE: Ocean Pines, MD, USA
ASSIGNEE: Life Science Labs, Inc., Minneapolis, MN, USA
PATENT INFORMATION: US 6090414 20000718
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (July 18, 2000) Vol. 1236, No. 3.
e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent

LANGUAGE: English
ENTRY DATE: Entered STN: 4 Apr 2001
Last Updated on STN: 18 Feb 2002

AB The five component composition consisting essentially of: (1) Water soluble antioxidant vitamin C or ascorbic acid, or any of its forms or derivatives, or mixtures thereof. (2) Oil soluble antioxidant vitamin E or Alpha-tocophorol, or any of its forms or derivatives, or mixtures thereof. (3) The element selenium, or a chemical (or composition) containing it, or mixtures thereof. The most preferred chemical containing selenium is dimethyl selenide and mixtures thereof. The words "dimethyl selenide" here and hereinafter mean dimethyl selenide and/or it's oxidation products, including dimethyl selenoxide. (4) A sulfur amino acid, in any form, or a sulfur peptide, or a sulfur protein, or any of their derivatives, or mixtures thereof. The mixture of methionine and cysteine, which contains as impurities some seleno-methionine and some selenocysteine, is preferred,--the tripeptide glutathione containing cysteine is also preferred. (5) Another antioxidant, other than vitamin C and other than vitamin E, which is synthetic or natural and water soluble or oil soluble, or a mixture of such antioxidants, or a combination of such forms thereof. The mixtures of butylated hydroxyanisole and ethoxyquin is preferred.

L5 ANSWER 21 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 1996:511364 BIOSIS
DOCUMENT NUMBER: PREV199699233720
TITLE: NADPH-dependent oxidation of benzidine by rat liver.
AUTHOR(S): Lakshmi, Vijaya M.; Zenser, Nathan T.; Hsu, F. F.; Mattammal, Michael B.; Zenser, Terry V. [Reprint author]; Davis, Bernard B.
CORPORATE SOURCE: VA Med. Cent., St. Louis, MO 63125-4199, USA
SOURCE: Carcinogenesis (Oxford), (1996) Vol. 17, No. 9, pp. 1941-1947.
CODEN: CRNGDP. ISSN: 0143-3334.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 14 Nov 1996
Last Updated on STN: 10 Dec 1996

AB This study used liver microsomes from control and beta-naphthoflavone-treated rats to evaluate NADPH-dependent oxidation of benzidine. With microsomes from beta-naphthoflavone-treated rats, the rates of formation of aqueous soluble metabolite (HPLC analysis) and protein and DNA binding were 835 +- 81, 14.5 +- 1.8 and 0.71 +- 0.14 pmol/ mg/min respectively. beta-Naphthoflavone treatment elicited 12.3-, 1.8- and 14.2-fold increases in benzidine metabolism compared with controls as judged by HPLC and protein and DNA binding respectively. For microsomes from treated animals, K-m and V-max values were 47 +- 6 mu-M and 1.13 +- 0.16 nmol/mg protein/min respectively. All of the metabolic parameters were inhibited to varying degrees by glutathione (1 or 10 mM), N-acetylmethionine (10 mM) and ascorbic acid (10 mM). Following glutathione addition, at least two new metabolite peaks were observed, representing apprx 6% of the total radioactivity recovered by HPLC. Neither metabolite was 3-(glutathion-S-yl)benzidine. Cytochrome P450 inhibitors (10 mu-M) specific for different members of cytochrome gene families 1-3 indicated that benzidine was metabolized by cytochrome P450 1A1/1A2. Ellipticine and alpha-naphthoflavone, specific 1A1/1A2 inhibitors, elicited 50% inhibition at -0.2 and 0.5 mu-M respectively. Electron impact and negative ion chemical ionization mass spectrometry identified the aqueous soluble metabolite as 3-hydroxybenzidine. The lability of 3-hydroxybenzidine observed at pH gt 7.0 was prevented by ascorbic acid. Thus, cytochrome P450 1A1/1A2 NADPH-dependent metabolism of benzidine to 3-hydroxybenzidine was demonstrated.

L5 ANSWER 22 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 1993:456546 BIOSIS
DOCUMENT NUMBER: PREV199396101446
TITLE: Bioactivation of N-hydroxy-2-acetylaminofluorenes by N,O-acyltransferase: Substituent effects on covalent binding to DNA.
AUTHOR(S): Boteju, Lakmal W.; Hanna, Patrick E. [Reprint author]
CORPORATE SOURCE: Dep. Med. Chem., Univ. Minnesota, Minneapolis, MN 55455, USA
SOURCE: Carcinogenesis (Oxford), (1993) Vol. 14, No. 8, pp. 1651-1657.
CODEN: CRNGDP. ISSN: 0143-3334.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 5 Oct 1993
Last Updated on STN: 30 Nov 1993

AB N-Acetoxyarylamines are reactive metabolites that lead to arylamine adduct formation with biological macromolecules. A series of 7-substituted-N-hydroxy-2-acetylaminofluorenes were converted to reactive N-acetoxyarylamines by enzymatic N,O-acyltransfer in the presence of DNA. The N-arylhydroxamic acid substrates that contained electronegative 7-substituents formed greater amounts of DNA adducts than either the unsubstituted compound (N-OH-AAF) or those analogs that contained electron-donating groups in the 7-position. Glutathione did not decrease the rates of DNA adduct formation, but other nucleophiles, such as potassium Oethylxanthate, thiourea and N-acetylmethionine, inhibited adduct formation by the 7-Br-substituted compound (7-Br-N-OH-AAF) and the unsubstituted parent compound (N-OH-AAF). Nucleophiles, reducing agents (e.g. ascorbic acid) and spin-trapping agents had minimal effect on DNA adduct formation by the bioactivated form of 7-acetyl-2-(N-hydroxyacetylamino)fluorene (7-Ac-N-OH-AAF). Triethylphosphite, an agent that reacts with aryl nitrenes, caused a concentration-dependent reduction in the amount of DNA adduct formed subsequent to bioactivation of 7-Ac-N-OH-AAF, but did not influence adduct formation when N-OH-AAF and 7-Br-N-OH-AAF were the substrates. The results indicate that a change in the reaction mechanism(s) responsible for DNA adduct formation occurred when the strongly electronegative acetyl group was incorporated into the 7-position of N-OH-AAF. It is proposed that a nitrene intermediate is involved in the formation of covalent adducts with DNA when 7-Ac-N-OH-AAF is activated by N,O-acyltransfer.

L5 ANSWER 23 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 1988:311401 BIOSIS
DOCUMENT NUMBER: PREV198886028439; BA86:28439
TITLE: IRREVERSIBLE INHIBITION OF RAT HEPATIC TRANSACETYLASE ACTIVITY BY N ARYLHYDROXAMIC ACIDS.
AUTHOR(S): WICK M J [Reprint author]; JANTAN I B; HANNA P E
CORPORATE SOURCE: DEP PHARMACOL, UNIV MINN, MINNEAPOLIS, MINN 55455, USA
SOURCE: Biochemical Pharmacology, (1988) Vol. 37, No. 7, pp. 1225-1232.
CODEN: BCPCA6. ISSN: 0006-2952.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 3 Jul 1988
Last Updated on STN: 3 Jul 1988

AB Both N-hydroxy-2-acetamidofluorene (N-OH-AAF) and the heterocyclic analogue, 2-(N-hydroxyacetamido)carbazole (N-OH-AAC), were shown to be mechanism-based irreversible inhibitors (suicide inhibitors) of partially

purified rat hepatic N-acetyltransferase (NAT) activity. Although N-OH-AAC exhibited an apparent first-order inactivation rate constant (ki) that was 7-fold lower than that of N-OH-AAF, their relative ki/KD values indicate that N-OH-AAC was the more potent and efficient inactivator of transacetylase activity. Inactivation of NAT activity by these N-arylhydroxamic acids appeared to involve contributions by electrophiles that react with the enzyme subsequent to release from the active site and by electrophiles that remain complexed with the active site. The irreversible nature of the enzyme inactivation was demonstrated by the failure to recover transacetylase activity upon either extensive dialysis or gel filtration of preparations that had been subjected to incubation with N-OH-AAF or N-OH-AAC. The use of the nucleophile N-acetylmethionine to trap the electrophilic reactants formed in the transacetylase-catalyzed bioactivation process resulted in a lower rate and extent of formation of methylthio adducts with N-OH-AAC than with N-OH-AAF. The results of this study indicate that N-OH-AAF and N-OH-AAC have potential for use as tools in the investigation of rat hepatic transacetylases.

L5 ANSWER 24 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 1986:104871 BIOSIS
DOCUMENT NUMBER: PREV198681015287; BA81:15287
TITLE: SUBSTITUENT EFFECTS ON THE BIOACTIVATION OF 2-N HYDROXYACETAMIDOFLUORENES BY N ARYLHYDROXAMIC-ACID N O ACYLTRANSFERASE.
AUTHOR(S): ELFARRA A A [Reprint author]; HANNA P E
CORPORATE SOURCE: DEP MED CHEM, UNIV MINN, MINNEAPOLIS, MINN 55455, USA
SOURCE: Journal of Medicinal Chemistry, (1985) Vol. 28, No. 10, pp. 1453-1460.
CODEN: JMCMAR. ISSN: 0022-2623.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 25 Apr 1986
Last Updated on STN: 25 Apr 1986

AB A series of 7-substituted analogues of 2-(N-hydroxyacetamido)fluorene (1) was subjected to bioactivation by a partially purified preparation of hamster hepatic AHAT, and the rates of methylthio adduct formation resulting from the reaction of the activated intermediates with N-acetylmethionine were determined. Electronegative substituents enhanced the amount of adduct formed; this finding contrasted with the results of a previous study in which it was found that electron-donating substituents facilitated the mechanism-based inactivation of AHAT by analogues of 1. The structures of the adducts formed from reaction of the activated forms of several of the 7-substituted compounds with N-acetylmethionine and with 2'-deoxyguanosine were determined; the types of adducts formed were similar to those formed with electrophiles generated by the AHAT-catalyzed activation of 1. Electronegative substituents enhanced the amount of adducts formed in the reaction with 2'-deoxyguanosine as well as with N-acetylmethionine.

L5 ANSWER 25 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 1984:332752 BIOSIS
DOCUMENT NUMBER: PREV198478069232; BA78:69232
TITLE: EFFECT OF AN INORGANIC AND ORGANIC FORM OF DIETARY SELENIUM ON THE PROMOTIONAL STAGE OF MAMMARY CARCINOGENESIS IN THE RAT.
AUTHOR(S): THOMPSON H J [Reprint author]; MEEKER L D; KOKOSKA S
CORPORATE SOURCE: HUMAN NUTRITION CENT, COLOVOS ROAD, UNIV NEW HAMPSHIRE, DURHAM, NH 03824, USA

SOURCE: Cancer Research, (1984) Vol. 44, No. 7, pp. 2803-2806.
CODEN: CNREA8. ISSN: 0008-5472.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB The relative effectiveness of either sodium selenite or selenomethionine in the inhibition of mammary carcinogenesis was studied in virgin female Sprague-Dawley rats. In 1 experiment, rats were given 50 mg of 1-methyl-1-nitrosourea per kg of body wt s.c. at 50 days of age. Beginning 7 days post-1-methyl-1-nitrosourea, they were assigned to a basal diet containing 0.1 ppm of Se or basal diet supplemented to contain either 4, 5 or 6 ppm of Se as sodium selenite or 5 or 6 ppm of Se as selenomethionine. Selenium treatment was continued until termination of the study 135 days after 1-methyl-1-nitrosourea treatment. Sodium selenite at the 5 ppm level was the most effective chemopreventive agent. The highest level of selenomethionine (6 ppm) caused grossly apparent liver damage. No liver damage was noted in sodium selenite-treated rats. In a 2nd experiment, rats were given 5 mg of 7,12-dimethyl-benz(a)anthracene at 50 days of age. Beginning 7 days after 7,12-dimethylbenz(a)anthracene treatment, rats were assigned randomly to the control group or to 1 of 2 Se treatment groups receiving either 3.4 ppm of Se as sodium selenite or 3.4 ppm as selenomethionine in their drinking water. Se supplementation was continued throughout the study until its termination at 111 days postcarcinogen. Sodium selenite significantly reduced cancer incidence and the average number of cancers per rat. Treatment with selenomethionine was less effective and caused severe liver damage. Although both sodium selenite and selenomethionine can inhibit some aspect of the postinitiation stage(s) of mammary carcinogenesis, Se provided as sodium selenite was the more effective and less toxic of the 2 chemicals. Increasing the dose of sodium selenite above 5 ppm did not enhance the inhibitory activity of Se.

L5 ANSWER 26 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1984:179442 BIOSIS
DOCUMENT NUMBER: PREV198477012426; BA77:12426
TITLE: AMINO TERMINAL PROCESSING OF ACTIN IN MOUSE L CELLS IN-VIVO.
AUTHOR(S): RUBENSTEIN P A [Reprint author]; MARTIN D J
CORPORATE SOURCE: DEPARTMENT OF BIOCHEMSTRY, COLLEGE OF MEDICINE, UNIVERSITY OF IOWA, IOWA CITY, IOWA 52242, USA
SOURCE: Journal of Biological Chemistry, (1983) Vol. 258, No. 6, pp. 3961-3966.
CODEN: JBCHA3. ISSN: 0021-9258.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB When Dictyostelium discoideum actin is synthesized in vitro, it is made as a 43,000-dalton polypeptide with an NH2-terminal N-acetylmethionine. The acetylmethionine is then cleaved post-translationally, and the new NH2-terminal aspartic acid is acetylated to give the mature form of actin. Inhibition of methionine acetylation prevents methionine cleavage. The results of experiments designed to discover whether this novel actin processing pathway is peculiar to the rabbit reticulocyte lysate system or whether it is utilized by mammalian cells in vivo as well are described. In mouse [neoplastic liver fibroblast] L-929 cells, actin is made as a 43,000-dalton protien with an NH2-terminal N-acylmethionine residue. Experiments using TLC and digestion of the acylmethionine residue with hog kidney acylase I demonstrate that the acyl group is an acetyl residue. Pulse-chase experiments show that over the course of 1 h, this precursor is

transformed first to an actin with a free NH2-terminal aspartic acid and is subsequently converted to mature L-cell actin with an acetylaspartic acid NH2 terminus. The half-life of the initial actin precursor in the cell appears to be .apprx. 12-15 min. The studies demonstrate the existence of this novel actin processing pathway in vivo and suggest that it is used for those actins where, in the gene, the initiator methionine codon directly precedes the codon for aspartic or glutamic acids, the residues normally found at the actin NH2 terminus.

L5 ANSWER 27 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1983:300983 BIOSIS
DOCUMENT NUMBER: PREV198376058475; BA76:58475
TITLE: A MODIFICATION OF THE SELENIUM-75 LABELED SELENO METHIONINE ASSAY FOR THE DETECTION OF COMPLEMENT DEPENDENT ANTIBODY IN HUMAN TUMOR SYSTEMS.
AUTHOR(S): AVIS I L [Reprint author]; AVIS F P
CORPORATE SOURCE: DEP SURGERY, UNIV WEST VIRGINIA, MORGANTOWN, W VA 26506, USA
SOURCE: Journal of Surgical Oncology, (1983) Vol. 22, No. 4, pp. 231-235.
CODEN: JSONAU. ISSN: 0022-4790.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
AB A modification of Brook's prelabeling (75SE) selenomethionine assay was developed and evaluated for detection of complement-dependent antibody (CDA) in a human tumor system. CDA was indeed detected in some breast cancer patients' sera. To determine whether the assay was reliable and reproducible, xenoantibodies were raised in rabbits by immunization with a human breast cancer line, Sk-Br-3, and tested against that line and 5 other unrelated human cancer lines. Multiple tests were performed on separate days. It can be concluded from the data that the assay is reliable and reproducible. The assay has wide application in investigating the biologic role of complement-dependent antibody activity in human and experimental animal tumor systems.

L5 ANSWER 28 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1983:239369 BIOSIS
DOCUMENT NUMBER: PREV198375089369; BA75:89369
TITLE: EVALUATION OF TECHNETIUM-99M LABELED AMINO-ACIDS AS RADIO PHARMACEUTICALS 4. SULFUR SUBSTITUTED CYSTEINES AND NITROGEN SUBSTITUTED IMINO DI ACETIC ACIDS.
AUTHOR(S): KARUBE Y [Reprint author]; MAEDA T; OHYA M; SUGATA S; KONO A; MATSUSHIMA Y
CORPORATE SOURCE: KYUSHU CANCER CENTER RESEARCH INSTITUTE, NOTAME, MINAMI-KU, FUKUOKA 815, JAPAN
SOURCE: Journal of Radiation Research, (1982) Vol. 23, No. 2, pp. 234-241.
CODEN: JRARAX. ISSN: 0449-3060.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
AB 99mTc-labeled ligands [16] were evaluated as scintigraphic agents [for cancer diagnosis]. The ligands studied were cysteine, glutathione, their S-subtituted derivatives, lysine-Nε ,Nε-diacetic acid, glyclyglycine-N,N-diacetic acid, glycylglycylglycine-N,N-diacetic acid, taurine-N,N-diacetic acid, hydrazine-N,N-diacetic acid, ethylenediamine-N,N-diacetic acid and propylene-1,3-diamine-N1 ,N1-diacetic acid. The ligands were labeled with

99mTc by the SnCl2 method, with > 95% yield. The in vivo behavior of the 99mTc-labeled ligands was studied in golden hamsters and dogs. The organ distribution in golden hamsters indicated clearance both by hepathobiliary and renal systems. The pancreas/blood ratios were much lower in the 99mTc-ligands than in 75Se-selenomethionine. Scintigraphic studies in dogs showed that the liver and kidneys were well visualized, but the accumulation by the pancreas was not sufficient for clear visualization.

L5 ANSWER 29 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 1983:211350 BIOSIS
DOCUMENT NUMBER: PREV198375061350; BA75:61350
TITLE: ARYL HYDROXAMIC-ACID BIO ACTIVATION VIA ACYL GROUP TRANSFER STRUCTURAL REQUIREMENTS FOR TRANS ACYLATING AND ELECTROPHILE GENERATING ACTIVITY OF N-2 FLUORENYL HYDROXAMIC ACIDS AND RELATED COMPOUNDS.
AUTHOR(S): YEH H-M [Reprint author]; HANNA P E
CORPORATE SOURCE: DEP PHARMACOL, UNIV MINNESOTA, MINNEAPOLIS, MINN 55455, USA
SOURCE: Journal of Medicinal Chemistry, (1982) Vol. 25, No. 7, pp. 842-846.
CODEN: JMCMAR. ISSN: 0022-2623.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB The synthesis of a series of 12 N-(2-fluorenyl)hydroxamic acids, N-(2-fluorenyl)-N-hydroxyureas and N-(2-fluorenyl)-N-hydroxycarbamates is reported. The compounds were evaluated for their ability to serve as substrates for a partially purified hamster hepatic arylhydroxamic acid N,O-acyltransferase preparation. Transacylating activity was measured spectrophotometrically with 4-aminoazobenzene as the acyl group acceptor, and electrophile-generating activity, which is thought to be responsible for the toxic and carcinogenic activity of this compound, was quantified by the N-acetylmethionine trapping assay. Only the N-acetyl, N-propionyl and N-methoxyacetyl derivatives exhibited relatively high levels of activity as measured by either of the assay methods. These results are generally consistent with previously reported conclusions regarding the steric and electronic characteristics of acyl groups that are required for activation by this enzyme system. N,O-Acyltransferase inactivation by N-hydroxy-2-acetamidofluorene depressed the bioactivation of the N-acetyl compound to a greater extent than the N-propionyl or N-methyloxyacetyl derivative.

L5 ANSWER 30 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 1982:106409 BIOSIS
DOCUMENT NUMBER: PREV198223036401; BR23:36401
TITLE: AMINO TERMINAL ACTIN PROCESSING IN-VIVO GOES THROUGH A 43000 MOLECULAR WEIGHT POLY PEPTIDE INTERMEDIATE WITH AN AMINO TERMINAL ACETYL METHIONINE.
AUTHOR(S): RUBENSTEIN P A [Reprint author]; RUPPERT D
CORPORATE SOURCE: UNIV IOWA, IOWA CITY, IOWA 52242, USA
SOURCE: Federation Proceedings, (1982) Vol. 41, No. 4, pp. ABSTRACT 6724.
Meeting Info.: 66TH ANNUAL MEETING OF THE FEDERATION OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY, NEW ORLEANS, LA., USA, APRIL 15-23, 1982. FED PROC.
CODEN: FEPRA7. ISSN: 0014-9446.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH

L5 ANSWER 31 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on

STN
ACCESSION NUMBER: 1982:49438 BIOSIS
DOCUMENT NUMBER: PREV198222049438; BR22:49438
TITLE: SCINTIGRAM OF THE TUMOR PRODUCING PANCREATIC ISLETS HORMONE AND DIGESTIVE TRACTS HORMONE BY SELENIUM-75 LABELED SELENO METHIONINE.
AUTHOR(S): IWASAKI N [Reprint author]; ICHIKAWA K; WATARI T; TAJIMA Y; SATOH N
CORPORATE SOURCE: DOKKYO UNIV SCH MED, TOCHIGI
SOURCE: Kaku Igaku, (1981) Vol. 18, No. 5, pp. 742.
Meeting Info.: 20TH ANNUAL MEETING OF THE JAPANESE SOCIETY OF NUCLEAR MEDICINE, MAEBASHI, GUMMA, JAPAN, NOV. 13-15, 1980. JPN J NUCL MED.
CODEN: KAIGBZ. ISSN: 0022-7854.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH

L5 ANSWER 32 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1981:247859 BIOSIS
DOCUMENT NUMBER: PREV198172032843; BA72:32843
TITLE: INHIBITORY EFFECTS OF SELENIUM ON THE GROWTH OF L-1210 LEUKEMIC CELLS.
AUTHOR(S): MILNER J A [Reprint author]; HSU C Y
CORPORATE SOURCE: DEP FOOD SCI, UNIV ILLINOIS, URBANA 61801, USA
SOURCE: Cancer Research, (1981) Vol. 41, No. 5, pp. 1652-1656.
CODEN: CNREA8. ISSN: 0008-5472.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
AB Se inhibited [mouse leukemia] L1210 cells in vitro and in vivo. The death of L1210 cells in vitro as indicated by trypan blue exclusion was dependent upon the form and concentration of Se tested. Incubation of L1210 cells in buffer containing Se at 1 μg/ml for 1 h prior to inoculation into mice significantly retarded the ability of the cells to propagate in vivo. Sodium selenite injected i.p. increased the longevity of mice inoculated with L1210 cells. Administration of 40 μg selenium as sodium selenite daily for 7 days resulted in a 65% increase in longevity of mice inoculated with 105 L1210 cells. Injections of sodium selenite at doses of 40 μg/day or less for 7 days did not significantly alter growth, liver weight or red and white blood cell counts. The efficacy of Se therapy was dependent upon the total number of tumor cells given in the initial inoculum. Se administration as sodium selenite was more effective in increasing the longevity of L1210-inoculated mice than was treatment with sodium selenate, selenocystine or selenomethionine. Sodium selenite treatment at 20, 30 or 40 μg/day in mice inoculated with 102 cells resulted in 50, 80 and 90% cures, respectively. Supplementation of the drinking water with 3 ppm Se as sodium selenite increased the longevity of L1210-inoculated mice by approximately 30%. Combined therapy with Se (30 μg/day) and methotrexate resulted in a significantly longer life span of L1210-treated mice than resulted from either compound administered separately.

L5 ANSWER 33 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1980:273429 BIOSIS
DOCUMENT NUMBER: PREV198070065925; BA70:65925
TITLE: SELENO METHIONINE LIVER SCANNING IN THE DIAGNOSIS OF HEPATOMA.
AUTHOR(S): COAKLEY A J [Reprint author]; WRAIGHT E P

CORPORATE SOURCE: DEP NUCL MED, ADDENBROOKE'S HOSP, CAMBRIDGE CB2 2QQ, ENGL, UK
SOURCE: British Journal of Radiology, (1980) Vol. 53, No. 630, pp. 538-543.
CODEN: BJRAAP. ISSN: 0007-1285.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
AB Liver subtraction scans using 99Tcm sulphur colloid and 75Se-selenomethionine were conducted in 58 patients with suspected hepatoma. Of the 18 patients with hepatoma proven by histology, 16 showed selective concentration of selenomethionine in the tumor, giving a true positive rate of 89%. Of the 40 patients did not have hepatoma, 32 scans showed no evidence of selective concentration of selenomethionine, giving a true negative rate of 80%. The false positive rate was 8% in non-cirrhotic patients with focal disease, but 55% in patients with cirrhosis. Combined scanning with this technique apparently is, useful in non-cirrhotic patients in distinguishing hepatoma from other causes of focal disease; the technique is not useful and frequently misleading in patients with cirrhosis.

L5 ANSWER 34 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1980:273352 BIOSIS
DOCUMENT NUMBER: PREV198070065848; BA70:65848
TITLE: INDUCTION OF DNA REPAIR BY SOME SELENIUM COMPOUNDS.
AUTHOR(S): RUSSELL G R [Reprint author]; NADER C J; PARTICK E J
CORPORATE SOURCE: CSIRO DIV HUM NUTR, KINTORE AVE, ADELAIDE, S AUST 5000, AUST
SOURCE: Cancer Letters, (1980) Vol. 10, No. 1, pp. 75-82.
CODEN: CALEDQ. ISSN: 0304-3835.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
AB Selenium compounds induced DNA repair synthesis as a measure of DNA damage in the isolated rat liver cell system and by Ames' Salmonella assay. In liver cells, DNA repair measured by uptake of [3H]thymidine greater with sodium selenite and selenate than with selenomethionine. In the bacterial culture system, selenomethionine inhibited the repair-deficient variant more than the selenite and selenate. These in vitro test systems were used to indicate that Se has a DNA-damaging potential and thus may be carcinogenic.

L5 ANSWER 35 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1980:149495 BIOSIS
DOCUMENT NUMBER: PREV198069024491; BA69:24491
TITLE: ACCUMULATION OF RADIO IODINATED L METHYL TYROSINE IN PANCREAS OF MICE CONCISE COMMUNICATION.
AUTHOR(S): TISLJAR U [Reprint author]; KLOSTER G; RITZL F; STOECKLIN G
CORPORATE SOURCE: INST CHEM, KERNFORSCH JULICH GMBH, D-5170 JULICH, W GER
SOURCE: Journal of Nuclear Medicine, (1979) Vol. 20, No. 9, pp. 973-976.
CODEN: JNMEAQ. ISSN: 0161-5505.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
AB [An improved imaging agent for diagnosis of pancreatic cancer is needed]. L-3-iodo-α-methyltyrosine, labeled 131I or 123I, has a high pancreatic specificity in mice. A pancreas-to-liver ratio of 8.6 ± 2.7 is observed during the 1st h after i.v. injection. Accumulation is also prominent in the kidneys, but excretion of the radioagent is

rapid, 50% of the activity being eliminated during 90 min. Compared with L-[75Se]selenomethionine, the compound currently used for pancreatic imaging, L-3-[123I] or [131I]iodo-α-methyltyrosine has a higher pancreas-to-liver ratio, a shorter physical half-life and biological half-time and better decay characteristics.

L5 ANSWER 36 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1980:36977 BIOSIS
DOCUMENT NUMBER: PREV198018036977; BR18:36977
TITLE: HOST CELLS INFILTRATING TUMORS IN-VIVO AND IN-VITRO REACTIVITY.
AUTHOR(S): FLANNERY G R [Reprint author]; ROBINS R A; BALDWIN R W
CORPORATE SOURCE: CANCER RES CAMPAIGN LAB, UNIV NOTTINGHAM, NOTTINGHAM, ENGL, UK
SOURCE: British Journal of Cancer, (1979) Vol. 40, No. 2, pp. 308.
CODEN: BJCAAI. ISSN: 0007-0920.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: ENGLISH

L5 ANSWER 37 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1979:136851 BIOSIS
DOCUMENT NUMBER: PREV197967016851; BA67:16851
TITLE: SELENIUM-75 SELENO METHIONINE SCINTIGRAPHY IN MEDIASTINAL DISEASES.
AUTHOR(S): MASAOKA A [Reprint author]; KYO S
CORPORATE SOURCE: FIRST DEP SURG, OSAKA UNIV MED SCH, FUKUSHIMAKU, OSAKA, JPN
SOURCE: Journal of Thoracic and Cardiovascular Surgery, (1978) Vol. 75, No. 3, pp. 419-424.
CODEN: JTCSAQ. ISSN: 0022-5223.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
AB Chest scanning with 75Se-selenomethionine was performed in 59 cases of mediastinal diseases. All cases of vascular diseases, cystic tumors and benign neurogenic tumor were negatively scanned. Parenchymatous teratoma, thymoma, malignant lymphoma, Castleman's tumor, epithelial tumors, tuberculous lymphadenitis and sarcoidosis showed high positive rates. In myasthenic thymus without thymoma, 2 of 15 cases were positive. The scan images of the resected specimens and preoperative chest scannings coincided.

L5 ANSWER 38 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1979:122931 BIOSIS
DOCUMENT NUMBER: PREV197967002931; BA67:2931
TITLE: STUDIES ON THE MICRO CYTO TOXICITY TEST PART 3 COMPARISON OF SELENIUM-75 SELENO METHIONINE WITH TRITIATED PROLINE CHROMIUM-51 LABELED SODIUM CHROMATE AND IODINE-125 IODODEOXY URIDINE FOR PRE LABELING TARGET CELLS IN LONG-TERM CYTO TOXICITY TESTS.
AUTHOR(S): BROOKS C G [Reprint author]
CORPORATE SOURCE: CANCER RES CAMPAIGN LAB, UNIV NOTTINGHAM, UNIVERSITY PARK, NOTTINGHAM, ENGL, UK
SOURCE: Journal of Immunological Methods, (1978) Vol. 22, No. 1-2, pp. 23-36.
CODEN: JIMMBG. ISSN: 0022-1759.
DOCUMENT TYPE: Article
FILE SEGMENT: BA

LANGUAGE: ENGLISH

AB Four intracellular radioisotope labels, [3H]proline, Na251CrO4, [75Se]selenomethionine and [125I]iododeoxyuridine, were evaluated for use in a pre-labeling long-term microcytotoxicity assay for cell-mediated immunity. Adherent rat tumor cells established in tissue culture were used as targets, and the basic variables studied were labeling efficiency, toxicity and spontaneous release rates. [125I]Iododeoxyuridine was unsuitable on account of its high toxicity and correspondingly high spontaneous release rate, and Na251CrO4 for its toxicity and low labeling efficiency. Of the 2 other radiolabels, [75Se]selenomethionine had the advantage over [3H]proline of higher labeling efficiency (especially in Ham's F10 medium), lower toxicity and being a γ-emitter. Released 75Se was non-reutilizable and its retention by target cells provided an accurate measure of cell survival in an alloimmune system. Methods of calculating the results of pre-labeling cytotoxicity tests based on the total radioactivity in target cells at the beginning of the assay were invalid.

L5 ANSWER 39 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 1978:228352 BIOSIS
DOCUMENT NUMBER: PREV197866040849; BA66:40849
TITLE: THE USE OF MULTIPLE RADIO NUCLIDE SCANNING IN THE DIFFERENTIATION OF UPPER ABDOMINAL LESIONS.
AUTHOR(S): ANDREWS J T [Reprint author]
CORPORATE SOURCE: R MELB HOSP, MELBOURNE, VICTORIA, AUST
SOURCE: Australasian Radiology, (1977) Vol. 21, No. 2, pp. 150-155.
CODEN: AURDAW. ISSN: 0004-8461.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB An attempt was made to evaluate the usefulness of an extension of the RES scan by a triple or quadruple radionuclide study in the diagnosis of disease processes of the upper abdomen, particularly in the investigation of abdominal masses in patients. The RES scan may be combined with a tumor seeking radionuclide such as 75Se selenomethionine or 67Ga citrate. A combination of 3 or more radionuclides increase the overall diagnostic accuracy of the technique.

L5 ANSWER 40 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 1978:203264 BIOSIS
DOCUMENT NUMBER: PREV197866015761; BA66:15761
TITLE: THE VALUE OF DIAGNOSTIC AIDS IN DETECTING PANCREAS CANCER.
AUTHOR(S): FITZGERALD P J [Reprint author]; FORTNER J G; WATSON R C; SCHWARTZ M K; SHERLOCK P; BENUA R S; CUBILLA A L; SCHOTTENFELD D; MILLER D; ET AL
CORPORATE SOURCE: MEML SLOAN-KETTERING CANCER CENT, 1275 YORK AVE, NEW YORK, NY 10021, USA
SOURCE: Cancer, (1978) Vol. 41, No. 3, pp. 868-879.
CODEN: CANCAR. ISSN: 0008-543X.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB By contract with the National Cancer Institute, the accuracy of diagnostic techniques was assessed in 184 patients suspected of having pancreas cancer. Of 138 patients operated on, 89 had pancreas duct cancer, 30 had cancer of a different site of origin in the head of the pancreas region and in 19 there was no evidence of cancer at operation. Of the 46 patients who were not

operated on, 13 had cancer and 33 patients were discharged as free of cancer. The majority of patients presented with signs and symptoms of biliary obstruction. Computerized transaxial tomography (CTT) gave a correct diagnosis in 31 of 33 patients (94%) with proven cancer, there were 2 patients with a false-negative report and a false-positive diagnosis occurred in 8 of 20 patients (40%) without cancer. Celiac angiography (CA) gave a correct diagnosis in 78 of 94 patients (83%) with cancer, a false-negative in 17% and a false-positive in 32%. 75Selenomethionine scan correctly diagnosed 27 of 36 patients (75%) with cancer, gave a false-negative in 25% and a false-positive in 31%. Ultrasonography gave a correct diagnosis in 18 of 27 patients with cancer (67%), a false-negative in 33% and a false-positive in 28%. Endoscopic retrograde cholangiopancreatography diagnosed correctly 8 of 11 cases (73%) of cancer; there were false-negative diagnoses of 3 cases (27%) and false-positives in 3 of 14 patients (21%). Duodenal aspiration techniques gave a low percentage of correct diagnoses. Chronic pancreatitis most commonly gave rise to a false-positive diagnosis. Serum alkaline phosphatase was elevated in 82% of patients and gave 18% false-negatives and 33% false-positives. Carcinoembryonic antigen (CEA) was elevated (> 2.5 ng/ml) in most of the pancreas cancer patients but also in patients with other cancers and non-cancerous disease. CTT, CA, alkaline phosphatase, 75Se-methionine and ultrasonography, in descending order, gave the highest percentage of correct diagnoses, but false-positive and false-negative diagnoses prevented any single test from being conclusive.

L5 ANSWER 41 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 1978:143820 BIOSIS
DOCUMENT NUMBER: PREV197865030820; BA65:30820
TITLE: SERUM THROMBOPOIETIC ACTIVITY FOLLOWING ADMINISTRATION OF VINBLASTINE.
AUTHOR(S): KLENER P [Reprint author]; MARCIBAL O; DONNER L; KORNALIK F
CORPORATE SOURCE: DIV HAEMATOL, 2ND DEP MED, CHARLES UNIV HOSP, U NEMOCNICE 2, 128 08 PRAHA 2, CZECH
SOURCE: Scandinavian Journal of Haematology, (1977) Vol. 19, No. 3, pp. 287-292.
CODEN: SJHAAQ. ISSN: 0036-553X.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB A possible role of humoral factors in the pathogenesis of vinblastine-induced thrombocytosis was examined. The thrombopoietic activity in serum of experimental animals was tested for its ability to stimulate the incorporation of 75-Se-selonemethionine into platelets of thrombocythyemic mice. The administration of low doses (0.1-0.5 mg/kg body wt) of vinblastine to rabbits caused a significant increase in serum thrombopoietic activity. Higher doses of vinblastine (1-5 mg/kg body wt) also increased the serum thrombopoietic activity but this increase was preceded by a transient drop in the platelet count of peripheral blood. This thrombocytopenia could be a stimulus for an increase in thrombopoietic activity, through a compensatory feedback mechanism. The vinblastine-induced increase in thrombopoietic activity was abolished by bilateral nephrectomy but not by bilateral ureteral ligation. Kidney tissue may be a major source of the serum thrombopoietic factors.

L5 ANSWER 42 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 1978:129059 BIOSIS
DOCUMENT NUMBER: PREV197865016059; BA65:16059
TITLE: THE INTERPRETATION OF THE RADIO NUCLIDE SUBTRACTION SCAN IN PANCREATIC CARCINOMA.

AUTHOR(S): ANDREWS J T [Reprint author]; KIDD G; STEVEN L W; MCKAY W J; LICHTENSTEIN M
CORPORATE SOURCE: DEP NUCL MED, R MELB HOSP, MELBOURNE, VICTORIA, AUST
SOURCE: Australasian Radiology, (1977) Vol. 21, No. 1, pp. 53-59.
CODEN: AURDAW. ISSN: 0004-8461.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
AB An attempt was made to indicate the different types of radionuclide subtraction scan patterns that can occur in carcinoma of the pancreas. A follow up was made of 44 patients with established clinical or proven histological diagnosis of carcinoma of the pancreas from a total series of 800 who were presented for radionuclide subtraction scanning. The study does not attempt to analyze results in pancreatic carcinoma but to indicate the type of scan presentations which can occur. It was interesting to find that > 1/3 of the patients studied presented with uptake of 75Se-selenomethionine in the tumor region and only a small number of the series revealed the tumor by a filling defect in an otherwise normal pancreatic scan. Despite the differing scan presentations of carcinoma of the pancreas it was not possible on the scan alone to differentiate a benign from a malignant lesion, but in each case the scan was abnormal and when taken within the clinical context could represent a carcinoma.

L5 ANSWER 43 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1978:102522 BIOSIS
DOCUMENT NUMBER: PREV197815046022; BR15:46022
TITLE: STUDIES ON THE DIAGNOSTIC SIGNIFICANCE OF SERUM CARBOXY PEPTIDASE A ACTIVITY IN DIABETES MELLITUS.
AUTHOR(S): FUJII S; YAMAGATA S; TANAKA K; WADA M; AKAI T
SOURCE: Japanese Journal of Medicine, (1977) Vol. 16, No. 2, pp. 106-111.
CODEN: JJMDAT. ISSN: 0021-5120.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

L5 ANSWER 44 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1977:33496 BIOSIS
DOCUMENT NUMBER: PREV197713033496; BR13:33496
TITLE: DESIGN OF SELENIUM CONTAINING AMINO-ACIDS AS PANCREATIC IMAGING AGENTS.
AUTHOR(S): DAVIS M A; GIESE R W; NORTON H T; SADEH T
SOURCE: Chemica Scripta, (1975) Vol. 8A, pp. 108.
CODEN: CSRPB9. ISSN: 0004-2056.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

L5 ANSWER 45 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1976:86845 BIOSIS
DOCUMENT NUMBER: PREV197612086845; BR12:86845
TITLE: VIABLE AND NONVIABLE TUMOR INCORPORATION OF LEAD-203 AND SELENIUM-75 SELENO METHIONINE.
AUTHOR(S): HAGAN P; CHAUNCEY D; AYRES P; HALPERN S
SOURCE: Journal of Nuclear Medicine, (1975) Vol. 16, No. 6, pp. 532.

CODEN: JNMEAQ. ISSN: 0161-5505.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

L5 ANSWER 46 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1976:32198 BIOSIS
DOCUMENT NUMBER: PREV197612032198; BR12:32198
TITLE: GALLIUM-67 CITRATE IN THE DIAGNOSIS OF UPPER ABDOMINAL LYMPHOMAS.
AUTHOR(S): ANDREWS J T; SULLIVAN J R; MCKAY W J
SOURCE: Australian and New Zealand Journal of Medicine, (1975) Vol. 5, No. 4, pp. 385.
CODEN: ANZJB8. ISSN: 0004-8291.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

L5 ANSWER 47 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1975:237620 BIOSIS
DOCUMENT NUMBER: PREV197560067616; BA60:67616
TITLE: TUMOR IMAGING RADIO PHARMACEUTICALS.
AUTHOR(S): PATERSON A H G; MCCREADY V R
SOURCE: British Journal of Radiology, (1975) Vol. 48, No. 571, pp. 520-531.
CODEN: BJRAAP. ISSN: 0007-1285.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable

L5 ANSWER 48 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1975:103520 BIOSIS
DOCUMENT NUMBER: PREV197559003520; BA59:3520
TITLE: SCANNING OF ACCESSORY SINUSES OF THE NOSE WITH SELENIUM-75 SELENO METHIONINE IN MALIGNANT TUMORS.
AUTHOR(S): GORSKII L A; PRIKHOD'KO A G; GABUNIYA R I; SENYUKOV M V
SOURCE: Meditsinskaya Radiologiya, (1974) Vol. 19, No. 2, pp. 24-29.
CODEN: MERAA9. ISSN: 0025-8334.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable

L5 ANSWER 49 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1975:79060 BIOSIS
DOCUMENT NUMBER: PREV197511079060; BR11:79060
TITLE: PANCREATIC CANCER.
AUTHOR(S): DIAMOND D; FISHER B
SOURCE: Surgical Clinics of North America, (1975) Vol. 55, No. 2, pp. 363-376.
CODEN: SCNAA7. ISSN: 0039-6109.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

L5 ANSWER 50 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 1975:30984 BIOSIS
DOCUMENT NUMBER: PREV197511030984; BR11:30984
TITLE: RADIO LABELED AMINO-ACIDS ANTIGENS AND ORGANIC COMPOUNDS IN TUMOR LOCALIZATION.
AUTHOR(S): SPENCER R P
SOURCE: (1974) pp. 171-178. CROLL, MILLARD N. ET AL. (ED.). NEW TECHNIQUES IN TUMOR LOCALIZATION AND RADIO IMMUNOASSAY. SYMPOSIUM. PHILADELPHIA, PA., U.S.A., MAY 3-5, 1973. XII+218P. ILLUS. JOHN WILEY AND SONS: NEW YORK, N.Y., U.S.A.; LONDON, ENGLAND. ISBN 0-471-18836-0.
DOCUMENT TYPE: Book
FILE SEGMENT: BR
LANGUAGE: Unavailable

L5 ANSWER 51 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1974:191159 BIOSIS
DOCUMENT NUMBER: PREV197458020853; BA58:20853
TITLE: NONCHROMAFFIN PARA GANGLIOMATOSIS MANIFESTING AS A COLD THYROID NODULE.
AUTHOR(S): HAEGERT D G; WANG N S; FARRER P A; SEEMAYER T A; THELMO W
SOURCE: American Journal of Clinical Pathology, (1974) Vol. 61, No. 4, pp. 561-570.
CODEN: AJCPAI. ISSN: 0002-9173.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable

L5 ANSWER 52 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1974:191060 BIOSIS
DOCUMENT NUMBER: PREV197458020754; BA58:20754
TITLE: FALSE NEGATIVE SELENIUM-75 SELENO METHIONINE SCANS IN PRIMARY LIVER CANCER.
AUTHOR(S): KEW M C; GEDDES E W; LEVIN J
SOURCE: Journal of Nuclear Medicine, (1974) Vol. 15, No. 4, pp. 234-236.
CODEN: JNMEAQ. ISSN: 0161-5505.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable

L5 ANSWER 53 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1973:156327 BIOSIS
DOCUMENT NUMBER: PREV197355056320; BA55:56320
TITLE: PARATHYROID TUMOR COEXISTING WITH HYPERPLASIA IN A CASE OF PRIMARY HYPER PARATHYROIDISM.
AUTHOR(S): DAMIAN A; STOENESCU D; STOICA T; OPROIU C; JOVIN T
SOURCE: Revue Roumaine d'Endocrinologie, (1972) Vol. 9, No. 3, pp. 207-210.
CODEN: RRENAR. ISSN: 0035-4015.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable

L5 ANSWER 54 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1973:95410 BIOSIS
DOCUMENT NUMBER: PREV197309095410; BR09:95410
TITLE: IN-VITRO MEASUREMENT OF GLOBULIN SYNTHESIZING CAPACITY OF LYMPHOCYTES USING SELENIUM-75 SELENO

METHIONINE.
AUTHOR(S): HASEGAWA M; YOSHIOKA H; IWASAKI I
SOURCE: Kaku Igaku, (1973) Vol. 10, No. 2, pp. 139-140.
CODEN: KAIGBZ. ISSN: 0022-7854.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

L5 ANSWER 55 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1973:58176 BIOSIS
DOCUMENT NUMBER: PREV197309058176; BR09:58176
TITLE: SPECIFIC DETECTION OF HEPATIC CANCER USING DOUBLE LABELING WITH SELENO METHIONINE 75 AND COLLOIDAL GOLD.
AUTHOR(S): DE SAINT-LAURENT J; MILHAUD G
SOURCE: (1972) pp. 683-686. LAROCHE, GUY AND L. JUSTIN-BESANCON. LES ENTRETIENS DE BICHAT 1972. MEDECINE ET BIOLOGIE. (THE BICHAT CONFERENCES, 1972. MEDICINE AND BIOLOGY.). 731P. ILLUS. EXPANSION SCIENTIFIQUE, FRANCAISE: PARIS, FRANCE.
DOCUMENT TYPE: Book
FILE SEGMENT: BR
LANGUAGE: Unavailable

L5 ANSWER 56 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1973:57767 BIOSIS
DOCUMENT NUMBER: PREV197309057767; BR09:57767
TITLE: USEFULNESS OF SCINTIGRAPHY FOR DETECTING TUMOR WITH GALLIUM-67 CITRATE AND SCINTILLATION CAMERA.
AUTHOR(S): HAMAMOTO K; MUKAI T; KOUSAKA T; MORI T; TORIZUKA K; SUZUKI T; HONJYO I; ISOBE Y; MATSUDA S; KIMURA C
SOURCE: J. Coll. Sci. Teach, (1971) Vol. 9, pp. 5.
CODEN: JSCTBN. ISSN: 0095-8670.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

L5 ANSWER 57 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1973:56996 BIOSIS
DOCUMENT NUMBER: PREV197309056996; BR09:56996
TITLE: QUANTITATIVE EVALUATION OF RADIO ISOTOPE DISTRIBUTION IN-VIVO BY ISO SENSITIVE SCANNER PLUS 4096 WORD MULTI CHANNEL ANALYZER COUPLING.
AUTHOR(S): HISADA K-I; KOJIMA K; MATSUDAIRA M; HIRAMATSU H
SOURCE: Radioisotopes, (1972) Vol. 21, No. 6, pp. 348-352.
CODEN: RAISAB. ISSN: 0033-8303.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

L5 ANSWER 58 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1972:231530 BIOSIS
DOCUMENT NUMBER: PREV197254061524; BA54:61524
TITLE: THE DIAGNOSIS OF PRIMARY MALIGNANT TUMORS OF THE LIVER FINDINGS IN 48 CONSECUTIVE PATIENTS.
AUTHOR(S): SHARPSTONE P; RAKE M O; SHILKIN K B; FLEISHER M R; LAWS J W; WILLIAMS R

SOURCE: QJM, (1972) Vol. 41, No. 161, pp. 99-110.
CODEN: QJMEA7. ISSN: 0033-5622.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable

L5 ANSWER 59 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1972:225937 BIOSIS
DOCUMENT NUMBER: PREV197254055931; BA54:55931
TITLE: PANCREATO GAMMA PHOTO SCINTIGRAPHY HEPATOGRAPHY AND HEPATO SCANNING IN CANCER OF THE PANCREATIC HEAD.
AUTHOR(S): STRUCHKOV V I; KASATKIN Y N; PURIZHANSKII I I; RUBIN M P; EGOROVA A I
SOURCE: Vestnik Khirurgii Imenii I I Grekova, (1971) Vol. 107, No. 12, pp. 3-8.
CODEN: VKHGAG. ISSN: 0042-4625.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable

L5 ANSWER 60 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1972:126821 BIOSIS
DOCUMENT NUMBER: PREV197253026821; BA53:26821
TITLE: SPECIFIC DETECTION OF HEPATIC CANCER BY DOUBLE MARKING WITH SELENIUM-75 SELENO METHIONINE AND COLLOIDAL GOLD-198.
AUTHOR(S): SAINT-LAURENT J D; HADCHOUEL P; CAROLI J; MILHAUD G
SOURCE: Comptes Rendus Hebdomadaires des Seances de l'Academie des Sciences Serie D Sciences Naturelles, (1971) Vol. 272, No. 25, pp. 3221-3224.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable

L5 ANSWER 61 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1972:36864 BIOSIS
DOCUMENT NUMBER: PREV197208036864; BR08:36864
TITLE: METHODS FOR THE DETERMINATION OF ENDOCRINOUSLY ACTIVE TUMORS.
AUTHOR(S): VAN DE WEYER K H
SOURCE: Medizinische Welt, (1971) Vol. 41, pp. 1618.
CODEN: MEWEAC. ISSN: 0025-8512.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

L5 ANSWER 62 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1972:30090 BIOSIS
DOCUMENT NUMBER: PREV197208030090; BR08:30090
TITLE: RADIO PHARMACEUTICALS IN THE EVALUATION OF NEOPLASTIC DISEASES A VALUABLE AID IN THE STAGING OF LYMPHOMA.
AUTHOR(S): WEINSTEIN M; MIALE A
SOURCE: Blood, (1970) Vol. 36, No. 6, pp. 859.
CODEN: BLOOAW. ISSN: 0006-4971.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

L5 ANSWER 63 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1971:151826 BIOSIS
DOCUMENT NUMBER: PREV197152061826; BA52:61826
TITLE: STOMACH UPTAKE SIMULATING TUMOR FOLLOWING THE INTRA ARTERIAL INJECTION OF SELENIUM-75 SELENO METHIONINE.
AUTHOR(S): QUINN J L III; NUDELMAN E J; CUMMINS G
SOURCE: Radiology, (1971) Vol. 98, No. 2, pp. 341-342. CODEN: RADLAX. ISSN: 0033-8419.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable

L5 ANSWER 64 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1971:76398 BIOSIS
DOCUMENT NUMBER: PREV197107076398; BR07:76398
TITLE: THE VALUE OF SCINTI SCANNING IN THE DIAGNOSIS OF HEPATIC TUMORS USING BOTH SELENO METHIONINE AND TECHNETIUM.
AUTHOR(S): RAKE M O; EDDLESTON A; PAGALTSOS S; WILLIAMS R; OSBORNE S B
SOURCE: British Journal of Radiology, (1970) Vol. 43, No. 515, pp. 830. CODEN: BJRAAP. ISSN: 0007-1285.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

L5 ANSWER 65 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1971:22792 BIOSIS
DOCUMENT NUMBER: PREV197107022792; BR07:22792
TITLE: STEPS IN THE DIAGNOSIS OF 3 FUNCTIONING ENDOCRINE TUMORS.
AUTHOR(S): DOOLAS A
SOURCE: Surgical Clinics of North America, (1971) Vol. 51, No. 1, pp. 195-210. CODEN: SCNAA7. ISSN: 0039-6109.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

L5 ANSWER 66 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1970:77589 BIOSIS
DOCUMENT NUMBER: PREV197006077589; BR06:77589
TITLE: SELENO METHIONINE CONCENTRATION IN NECK MASSES OF THYROID AND NON-THYROIDAL ORIGIN.
AUTHOR(S): WEINSTEIN M B
SOURCE: Southern Medical Journal, (1969) Vol. 62, No. 11, pp. 1437. CODEN: SMJOAV. ISSN: 0038-4348.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

L5 ANSWER 67 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1970:21462 BIOSIS
DOCUMENT NUMBER: PREV197006021462; BR06:21462
TITLE: SELENIUM-75 SELENO METHIONINE AS

TUMOR DIAGNOSTIC AGENT CLINICAL AND EXPERIMENTAL STUDY.
AUTHOR(S): JOVANOVIC D; BOUCKAERT A
SOURCE: (1969) pp. 753-766. ERICSON, ANNE (EDITOR). MEDICAL RADIOISOTOPE SCINTIGRAPHY. VOL. II. 934P. ILLUS. INTERNATIONAL ATOMIC ENERGY AGENCY: VIENNA, AUSTRIA (DIST. IN THE U.S. BY UNIPUB, INC.: NEW YORK, N.Y.). 1969.
DOCUMENT TYPE: Book
FILE SEGMENT: BR
LANGUAGE: Unavailable

L5 ANSWER 68 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1969:47018 BIOSIS
DOCUMENT NUMBER: PREV196905047018; BR05:47018
TITLE: NEOPL TUMOR AND ORGAN UPTAKE OF NUTRIENTS RELATIONSHIP TO BLOOD FLOW ABSTRACT SELENIUM-75 SELENO METHIONINE RADIO RUBIDIUM SAPIRSTEINS TECHNIQUE INST GAMMA RAY SPECTROSCOPY MOUSE LYMPH ADENOMATOUS NODES NEOPL MAMMARY ADENO CARCINOMA.
AUTHOR(S): SPENCER R P; CORNELIUS E A
SOURCE: Federation Proceedings, (1969) Vol. 28, No. 2, pp. 829.
CODEN: FEPRA7. ISSN: 0014-9446.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

L5 ANSWER 69 OF 72 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1968:115900 BIOSIS
DOCUMENT NUMBER: PREV19684900115921; BA49:115921
TITLE: Parathyroid scanning in the human with seleno-methionine-75Se.
AUTHOR(S): McGEOWN, MARY G.; BELL, T. K.; SOYANNWO, M. A. O.; FENTON, S. S. A.; OREOPOULOS, D.
CORPORATE SOURCE: Queen's Univ. , Dep. Med., Belfast, N. Ire., UK
SOURCE: BRIT J RADIOL, (1968) Vol. 41, No. 484, pp. 300-306.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable
ENTRY DATE: Entered STN: May 2007
Last Updated on STN: May 2007
AB The neck area was scanned in 8 patients at intervals for 10 to 90 min. following the intravenous injection of 200 [mu]Ci of selenomethionine-75Sec. Seven of the patients were subsequently explored and one or more enlarged parathyroids were found in all of them. The identification of active areas on the scans did not correspond well with the operation finding. The concentration of the isotope in the parathyroids was 3 to 4 times that in circulating blood, while in lymph nodes it was about twice that of blood. The concentration in the thyroid was not much above that of blood but despite this it is thought that the large bulk of the thyroid must make a considerable contribution to the background radioactivity in the neck. Apparent areas of concentration of selenomethionine-75Se were in the knee area 90 min. after injection. An in vitro study suggested that it would be impossible to detect small parathyroid tumors unless a concentration of 4-fold or more above blood level can be obtained. ABSTRACT AUTHORS: Authors

L5 ANSWER 70 OF 72 MEDLINE on STN
ACCESSION NUMBER: 95226450 MEDLINE

DOCUMENT NUMBER: PubMed ID: 7711067
TITLE: Isolation and expression of rat thymidylate synthase cDNA: phylogenetic comparison with human and mouse thymidylate synthases.
AUTHOR: Ciesla J; Weiner K X; Weiner R S; Reston J T; Maley G F; Maley F
CORPORATE SOURCE: Nencki Institute of Experimental Biology, Department of Cellular Biochemistry, Warsaw, Poland.
CONTRACT NUMBER: CA44355 (United States NCI)
SOURCE: Biochimica et biophysica acta, (1995 Apr 4) Vol. 1261, No. 2, pp. 233-42.
Journal code: 0217513. ISSN: 0006-3002.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-L12138
ENTRY MONTH: 199505
ENTRY DATE: Entered STN: 24 May 1995
Last Updated on STN: 6 Feb 1998
Entered Medline: 15 May 1995

AB Two cDNA clones representing rat hepatoma thymidylate synthase (rTS) were isolated from a lambda ZAP II cDNA library using as a probe a fragment of the human TS cDNA. The two were identical except that one was missing 50 bp and the other 23 bp corresponding to the 5' coding region of the protein. The missing region was obtained by screening a rat genomic library. The open reading frame of rTS cDNA encoded 921 bp encompassing a protein of 307 amino acids with a calculated molecular mass of 35,015 Da. Rat hepatoma TS appears identical to normal rat thymus TS and the two sequences differ from mouse TS in the same eight amino acid residues. Six of these differences are in the first 21 amino acids from the amino-end. The human enzyme differed from rat and mouse TS at 17 residues where the latter two were identical, with most changes being conservative in nature. The three species differed completely at only four sites. Because the mouse TS shares four amino acids with human TS at sites which differ from rTS and a comparable situation does not exist between rTS and human TS, it is suggested that mouse TS is closer to human TS phylogenetically than rTS. The polymerase chain reaction was used to subclone the protein coding region of rTS into a high expression vector, which expressed rTS in Escherichia coli to the extent of 10 to 20% of its cellular protein. Although the amino-end of the amplified TS was unblocked, that isolated from a FUdR-resistant rat hepatoma cell line contained mostly N-acetylmethionine on its N-terminal end, a finding that may have significant regulatory consequences, which are discussed. The TS level in the resistant cell line was 60 to 70-fold higher than normal which was found to be associated with both multiple gene copies and an expanded TS mRNA pool.

L5 ANSWER 71 OF 72 MEDLINE on STN
ACCESSION NUMBER: 94199658 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8149465
TITLE: Characterization of tissue selenium profiles and anticarcinogenic responses in rats fed natural sources of selenium-rich products.
AUTHOR: Ip C; Lisk D J
CORPORATE SOURCE: Department of Surgical Oncology, Roswell Park Cancer Institute, Buffalo, NY 14263.
CONTRACT NUMBER: CA 27706 (United States NCI)
SOURCE: Carcinogenesis, (1994 Apr) Vol. 15, No. 4, pp.

573-6.
Journal code: 8008055. ISSN: 0143-3334.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199405
ENTRY DATE: Entered STN: 23 May 1994
Last Updated on STN: 23 May 1994
Entered Medline: 12 May 1994

AB The present report describes the biological effects associated with the feeding of three selenium-rich natural products in rats: high-selenium garlic, high-selenium onion and Brazil nut. The first two are experimental crops cultivated with selenium fertilization. Brazil nut is probably the only unadulterated high-selenium food that is available commercially. Tissue selenium profiles, liver glutathione concentrations and mammary cancer inhibition (in the dimethylbenz[a] anthracene model) were the endpoints of investigation. Parallel designs were set up to compare the three high-selenium products with selenite and selenomethionine. Previous studies have shown that treatment with seleno-methionine resulted in significantly greater tissue selenium accumulation, particularly in skeletal muscle, than treatment with selenite. In contrast, selenite, but not selenomethionine, induced a modest increase in liver glutathione concentrations. The objective was to determine whether the high-selenium natural products elicited responses that were similar to that of selenite or selenomethionine. Our experiments suggested that the high-selenium garlic and onion might have some unique attributes. First, their ingestion did not lead to an exaggerated accumulation of tissue selenium, a concern that was shared by both selenomethionine and Brazil nut. Second, unlike selenite, they did not cause any perturbation in glutathione homeostasis. Third, they expressed good anticancer activity that was equal to, if not better than, that of selenite. The chemical form(s) of selenium present in the high-selenium Allium vegetables will be discussed in relation to the manifestation of the above characteristics.

L5 ANSWER 72 OF 72 MEDLINE on STN
ACCESSION NUMBER: 87230782 MEDLINE
DOCUMENT NUMBER: PubMed ID: 3588166
TITLE: Myasthenia gravis: 75seleno-methionine scanning of thymus gland.
AUTHOR: Szobor A; Fornet B
SOURCE: Acta medica Hungarica, (1986) Vol. 43, No. 3, pp. 243-8.
Journal code: 8400269. ISSN: 0236-5286.
PUB. COUNTRY: Hungary
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198707
ENTRY DATE: Entered STN: 5 Mar 1990
Last Updated on STN: 5 Mar 1990
Entered Medline: 17 Jul 1987

AB The 75Se-seleno-methionine isotope thymus scanning was examined in a series of patients with myasthenia gravis. The method proved useful and informative in the diagnostics of myasthenia. Prior to thymectomy, the thymic tumour or a large gland could be observed and some hints could be gained concerning the biological activity of the gland. After the operation, the success of thymectomy could be checked and later a possible recidive could be shown or excluded. In non-operative cases the change in thymic activity could be followed which is an important sign

of a malignant or tumorous growth of the thymus.

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ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
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FULL ESTIMATED COST                                   191.52     230.11

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                                                      ENTRY    SESSION
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 NEWS  1          Web Page for STN Seminar Schedule - N. America
 NEWS  2  AUG 06  CAS REGISTRY enhanced with new experimental property tags
 NEWS  3  AUG 06  FSTA enhanced with new thesaurus edition
 NEWS  4  AUG 13  CA/CAplus enhanced with additional kind codes for granted
                  patents
 NEWS  5  AUG 20  CA/CAplus enhanced with CAS indexing in pre-1907 records
 NEWS  6  AUG 27  Full-text patent databases enhanced with predefined
                  patent family display formats from INPADOCDB
 NEWS  7  AUG 27  USPATOLD now available on STN
 NEWS  8  AUG 28  CAS REGISTRY enhanced with additional experimental
                  spectral property data
 NEWS  9  SEP 07  STN AnaVist, Version 2.0, now available with Derwent
                  World Patents Index
 NEWS 10  SEP 13  FORIS renamed to SOFIS
 NEWS 11  SEP 13  INPADOCDB enhanced with monthly SDI frequency
 NEWS 12  SEP 17  CA/CAplus enhanced with printed CA page images from
                  1967-1998
 NEWS 13  SEP 17  CAplus coverage extended to include traditional medicine
                  patents
 NEWS 14  SEP 24  EMBASE, EMBAL, and LEMBASE reloaded with enhancements
 NEWS 15  OCT 02  CA/CAplus enhanced with pre-1907 records from Chemisches
                  Zentralblatt
 NEWS 16  OCT 19  BEILSTEIN updated with new compounds
 NEWS 17  NOV 15  Derwent Indian patent publication number format enhanced
 NEWS 18  NOV 19  WPIX enhanced with XML display format
 NEWS 19  NOV 30  ICSD reloaded with enhancements
 NEWS 20  DEC 04  LINPADOCDB now available on STN
 NEWS 21  DEC 14  BEILSTEIN pricing structure to change
 NEWS 22  DEC 17  USPATOLD added to additional database clusters
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 NEWS 23  DEC 17  IMSDRUGCONF removed from database clusters and STN
 NEWS 24  DEC 17  DGENE now includes more than 10 million sequences
 NEWS 25  DEC 17  TOXCENTER enhanced with 2008 MeSH vocabulary in
                  MEDLINE segment
 NEWS 26  DEC 17  MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
 NEWS 27  DEC 17  CA/CAplus enhanced with new custom IPC display formats
 NEWS 28  DEC 17  STN Viewer enhanced with full-text patent content
                  from USPATOLD
 NEWS 29  JAN 02  STN pricing information for 2008 now available
 NEWS 30  JAN 16  CAS patent coverage enhanced to include exemplified
                  prophetic substances
 NEWS 31  JAN 28  USPATFULL, USPAT2, and USPATOLD enhanced with new
                  custom IPC display formats
 NEWS 32  JAN 28  MARPAT searching enhanced
 NEWS 33  JAN 28  USGENE now provides USPTO sequence data within 3 days
                  of publication
 NEWS 34  JAN 28  TOXCENTER enhanced with reloaded MEDLINE segment
 NEWS 35  JAN 28  MEDLINE and LMEDLINE reloaded with enhancements
 NEWS 36  FEB 08  STN Express, Version 8.3, now available


 NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,
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FILE 'REGISTRY' ENTERED AT 09:48:31 ON 20 FEB 2008
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DICTIONARY FILE UPDATES:  19 FEB 2008  HIGHEST RN 1004621-14-0

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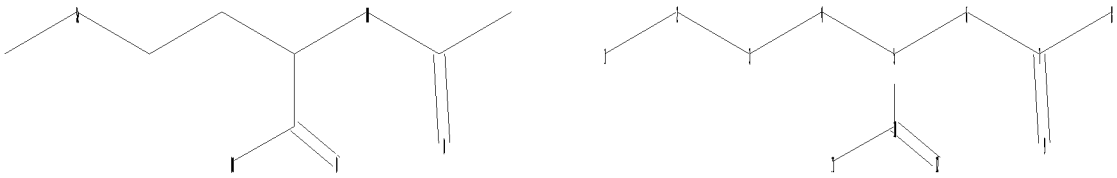

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chain bonds :
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exact/norm bonds :
1-2 2-3 5-6 6-7 7-9
exact bonds :
3-4 4-5 5-10 7-8
normalized bonds :
10-11 10-12

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS

L1 STRUCTURE UPLOADED

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The query entered contains both search terms created by structure-building or screen commands and text search terms. L#s created via the STRUCTURE or SCREEN commands must be searched in the structures files separately from text terms or profiles. The L# answer sets from structure searches can be used in crossover searches and can be combined with text terms.

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FULL SEARCH INITIATED 09:48:48 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 20 TO ITERATE

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L2 2 SEA FAM FUL L1

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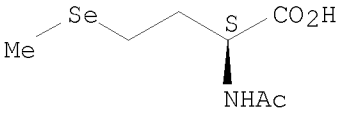
L2 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2008 ACS on STN
RN 210910-25-1 REGISTRY

ED Entered STN: 06 Sep 1998
CN Butanoic acid, 2-(acetylamino)-4-(methylseleno)-, (2S)- (CA INDEX NAME)
FS STEREOSEARCH
MF C7 H13 N O3 Se
SR CA
LC STN Files: CA, CAPLUS, CHEMCATS, TOXCENTER, USPATFULL

Absolute stereochemistry.



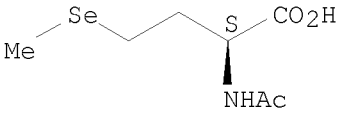
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d l2 1-2

L2 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2008 ACS on STN
RN 210910-25-1 REGISTRY
ED Entered STN: 06 Sep 1998
CN Butanoic acid, 2-(acetylamino)-4-(methylseleno)-, (2S)- (CA INDEX NAME)
FS STEREOSEARCH
MF C7 H13 N O3 Se
SR CA
LC STN Files: CA, CAPLUS, CHEMCATS, TOXCENTER, USPATFULL

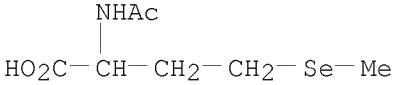
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2008 ACS on STN
RN 174463-50-4 REGISTRY
ED Entered STN: 22 Mar 1996
CN Butanoic acid, 2-(acetylamino)-4-(methylseleno)- (CA INDEX NAME)
MF C7 H13 N O3 Se
SR CA
LC STN Files: CA, CAPLUS, CASREACT, CHEMCATS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
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FULL ESTIMATED COST	76.57	76.78

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=> s l2
L3 5 L2

=> d l3

L3 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2005:14419 CAPLUS
DN 142:114471
TI Preparation of glycosylated amino acids, proteins and peptides via olefin metathesis reactions
IN Davis, Benjamin Guy; Kramer, Holger Bernd Ralf
PA Isis Innovation Limited, UK
SO PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005000873	A1	20050106	WO 2004-GB2738	20040624

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,

AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG
PRAI GB 2003-14741 A 20030624
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d l3 ibib abs 1-5

L3 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:14419 CAPLUS
DOCUMENT NUMBER: 142:114471
TITLE: Preparation of glycosylated amino acids, proteins and peptides via olefin metathesis reactions
INVENTOR(S): Davis, Benjamin Guy; Kramer, Holger Bernd Ralf
PATENT ASSIGNEE(S): Isis Innovation Limited, UK
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005000873	A1	20050106	WO 2004-GB2738	20040624

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 2003-14741 A 20030624
AB A method for the preparation of a glycosylated amino acid, protein or peptide comprises reacting an unprotected carbohydrate containing a carbon-carbon double bond (e.g., an allyl or vinyl C-glycoside) with an amino acid, a protein or a peptide containing a side-chain carbon-carbon double bond under olefin metathesis reaction conditions. The side-chain carbon-carbon double bond is introduced by (a) oxidizing the sulfur in methionine or the selenium in selenomethione or homoselenocysteine and (b) eliminating the sulfoxide or selenoxide. Thus, 3-(α-D-glucopyranosyl)propene, prepared by pivaloylation-allylation of glucose, was reacted with vinylglycine (vG) tripeptide Ac-vG-Ser-Phe-OMe in the presence of Grubbs-Hoveyda catalyst to afford the desired cross-metathesis product in mixture with the C-glycoside homodimer byproduct.
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:467738 CAPLUS
DOCUMENT NUMBER: 141:17591
TITLE: Agent having a destructive effect on malignant tumors and method for the production
INVENTOR(S): Groke, Karl; Herwig, Ralf
PATENT ASSIGNEE(S): C.Y.L. Handelsges. m.b.H., Austria; Ferdinand, Peter

SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004047832	A1	20040610	WO 2003-EP50712	20031013
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AT 2002001778	A	20040815	AT 2002-1778	20021127
AT 412447	B	20050325		
CA 2507273	A1	20040610	CA 2003-2507273	20031013
AU 2003285351	A1	20040618	AU 2003-285351	20031013
EP 1565176	A1	20050824	EP 2003-778338	20031013
EP 1565176	B1	20060524		
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JP 2006508998	T	20060316	JP 2004-554531	20031013
AT 326958	T	20060615	AT 2003-778338	20031013
PT 1565176	T	20061031	PT 2003-778338	20031013
ES 2268452	T3	20070316	ES 2003-778338	20031013
US 2006292218	A1	20061228	US 2006-536777	20060907

PRIORITY APPLN. INFO.:			
AT 2002-1778	A	20021127	
EP 2003-778338	A	20031013	
WO 2003-EP50712	W	20031013	

AB Disclosed is an agent which has a destructive effect on malignant tumors and contains alpha-ketoglutaric acid, N-acetyl-seleno-L-methionine, N-acetyl-L-methionine, and a compound that is capable of forming azomethine and is selected among the group 5-hydroxymethylfurfural, dehydroascorbic acid, maltol, and vanillin as an active substance, 5-hydroxymethylfurfural being preferred. The inventive agent can be used in the form of an infusion, in an oral or rectal form of administration, or as an irrigation in cancer therapy. The treatment of cancer patients with the following infusion solution is reported: α-ketoglutaric acid 9.0 g/L; 5-hydroxymethyl furfural 3.0 g/L; N-acetyl-seleno-L-methionine 2.0 mg/L; N-acetyl-L-methionine 100.00 mg/L; glucose 30.0 g/L; sodium and potassium ions to set pH.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:485713 CAPLUS
DOCUMENT NUMBER: 129:146163
TITLE: Acylase I-catalyzed deacetylation of N-acetyl-L-cysteine and S-alkyl-N-acetyl-L-cysteines
AUTHOR(S): Uttamsingh, Vinita; Keller, D. A.; Anders, M. W.
CORPORATE SOURCE: Department of Pharmacology and Physiology, University of Rochester, Rochester, NY, 14642, USA
SOURCE: Chemical Research in Toxicology (1998), 11(7), 800-809
CODEN: CRTOEC; ISSN: 0893-228X
PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal
LANGUAGE: English
AB The aminoacylase that catalyzes the hydrolysis of N-acetyl-L-cysteine (NAC) was identified as acylase I after purification by column chromatog. and electrophoretic anal. Rat kidney cytosol was fractionated by ammonium sulfate precipitation, and the proteins were separated by ion-exchange column chromatog., gel-filtration column chromatog., and hydrophobic interaction column chromatog. Acylase activity with NAC and N-acetyl-L-methionine (NAM), a known substrate for acylase I, as substrates coeluted during all chromatog. steps. Sodium dodecyl sulfate-polyacrylamide gel electrophoresis showed that the protein was purified to near homogeneity and had a subunit Mr of 43 000, which is identical with the Mr of acylase I from porcine kidney and bovine liver. N-Butylmalonic acid was a slow-binding inhibitor of acylase I and inhibited the deacetylation of NAC with a Ki of 192 ± 27 μM. These results show that acylase I catalyzes the deacetylation of NAC. The acylase I-catalyzed deacetylation of a range of S-alkyl-N-acetyl-L-cysteines, their carbon and oxygen analogs, and the selenium analog of NAM was also studied with porcine kidney acylase I. The specific activity of the acylase I-catalyzed deacetylation of these substrates was related to their calculated molar volumes and log P values. The S-alkyl-N-acetyl-L-cysteines with short (C0-C3) and unbranched S-alkyl substituents were good acylase I substrates, whereas the S-alkyl-N-acetyl-L-cysteines with long (>C3) and branched S-alkyl substituents were poor acylase I substrates. The carbon and oxygen analogs of S-methyl-N-acetyl-L-cysteine and the carbon analog of S-ethyl-N-acetyl-L-cysteine were poor acylase I substrates, whereas the selenium analog of NAM was a good acylase I substrate.
REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:722992 CAPLUS
DOCUMENT NUMBER: 127:331721
TITLE: L-methionine related L-amino acids by acylase cleavage of their corresponding N-acetyl-DL-derivatives
AUTHOR(S): Bommarius, Andreas S.; Drauz, Karlheinz; Gunther, Kurt; Knaup, Gunter; Schwarm, Michael
CORPORATE SOURCE: Degussa AG, Specialty Chemicals, R and D Fine Chemicals, Hanau, D-63403, Germany
SOURCE: Tetrahedron: Asymmetry (1997), 8(19), 3197-3200
CODEN: TASYE3; ISSN: 0957-4166
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 127:331721
AB Acylase I from Aspergillus oryzae is an even more useful enzyme than suggested so far. Besides standard amino acids such as L-Met, L-Val and L-Phe, a number of addnl. sulfur- and selenium-containing amino acids can be obtained at useful reaction rates and in very high enantiomeric purity by kinetic resolution of the resp. N-acetyl-DL-amino acids.
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:30201 CAPLUS
DOCUMENT NUMBER: 124:203067
TITLE: A New Efficient Synthesis of Acetyltelluro- and Acetylselenomethionine and Their Use in the Biosynthesis of Heavy-Atom Protein Analogs
AUTHOR(S): Karnbrock, Wilhelm; Weyher, Elisabeth; Budisa, Nediljko; Huber, Robert; Moroder, Luis
CORPORATE SOURCE: Max-Planck-Institut fuer Biochemie, Martinsried,

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                        82152, Germany
SOURCE:                 Journal of the American Chemical Society (1996),
                        118(4), 913-14
                        CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER:              American Chemical Society
DOCUMENT TYPE:          Journal
LANGUAGE:               English
OTHER SOURCE(S):        CASREACT 124:203067
AB   N-Acetyl-DL-telluromethionine and N-acetyl-DL-selenomethionine were
     obtained in good yields upon reaction of racemic 2-
     (acetylamino)butyrolactone with MeTeLi and MeSeLi, resp., and their
     enantioselective hydrolysis with aminoacylase generated the related
     L-amino acids.  The biosynthesis of all-Met(Te)- and all-Met(Se)-annexin V
     with the racemic acetyl derivs. was as efficient, if not better than the
     use of the related L-amino acids.


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FILE 'MEDLINE' ENTERED AT 10:01:36 ON 20 FEB 2008

=> s (seleno or selinium or selenomethionine) and acetyl
L4         124 (SELENO OR SELINIUM OR SELENOMETHIONINE) AND ACETYL

=> dup rem
ENTER L# LIST OR (END):l4
PROCESSING COMPLETED FOR L4
L5           80 DUP REM L4 (44 DUPLICATES REMOVED)

=> s l5 and py<=2003
L6           60 L5 AND PY<=2003

=> d scan

L6   60 ANSWERS  BIOSIS  COPYRIGHT (c) 2008 The Thomson Corporation  on STN
TI   EFFECTS OF DRUGS ON ADHESION OF HUMAN PLATELETS.
IT   Miscellaneous Descriptors
        8 SELENO ISO URONIUM CYCLIC IMP ACETYL
        SALICYLIC-ACID ADENOSINE DIPYRIDAMOLE CHLORPROMAZINE HEMATOLOGIC-DRUG
        COMPUTER ANALYSIS

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=> s selenomethionine and acetyl
L7           59 SELENOMETHIONINE AND ACETYL

=> dup rem
ENTER L# LIST OR (END):l7
PROCESSING COMPLETED FOR L7
```

L8 36 DUP REM L7 (23 DUPLICATES REMOVED)

=> s l8 and py<=2003
L9 20 L8 AND PY<=2003

=> d l9 ibib abs 1-20

L9 ANSWER 1 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 2003:11436 BIOSIS
DOCUMENT NUMBER: PREV200300011436
TITLE: Metabolic pathway for selenium in the body: Speciation by HPLC-ICP MS with enriched Se.
AUTHOR(S): Suzuki, K. T. [Reprint Author]; Ogra, Y.
CORPORATE SOURCE: Graduate School of Pharmaceutical Sciences, Chiba University, Chiba, 263-8522, Japan
ktsuzuki@p.chiba-u.ac.jp
SOURCE: Food Additives and Contaminants, (October 2002) Vol. 19, No. 10, pp. 974-983. print.
ISSN: 0265-203X (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 18 Dec 2002
Last Updated on STN: 18 Dec 2002
AB Selenium (Se) is an ultramicro essential nutrient and both inorganic (selenite and selenate) and organic (selenocysteine and selenomethionine) forms of Se can be used as nutritional sources. Metabolic pathways for Se in the body were studied for selenite and selenate, with the use of enriched 82Se, by speciation with separation by gel filtration HPLC and detection by element-specific mass spectrometry with ionization with inductively coupled argon plasma (HPLC-ICP MS). The concentrations of 82Se in organs and body fluids and the distributions of their constituents depending on the dose and time after the intravenous administration of 82Se-selenite and -selenate to rats were determined. Selenite was taken up by red blood cells within several minutes, reduced to selenide by glutathione, and then transported to the plasma, bound selectively to albumin and transferred to the liver. Contrary to selenite, intact selenate was either taken up directly by the liver or excreted into the urine. The 82Se of selenite origin and that of selenate origin were detected in the forms of the two Se peak materials in the liver, A and B. The former one was methylated to the latter in vivo and in vitro. The latter one was identical with the major urinary metabolite and it was identified as Se-methyl-N-acetyl-selenohexosamine (selenosugar). The chemical species-specific metabolic pathway for Se was explained by the metabolic regulation through selenide as the assumed common intermediate for the inorganic and organic Se sources and as the checkpoint metabolite between utilization for the selenoprotein synthesis and methylation for the excretion of Se.

L9 ANSWER 2 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:420926 BIOSIS
DOCUMENT NUMBER: PREV200200420926
TITLE: Reduction of protein carbonyls from saliva exposed to cigarette smoke by an antioxidant complex in a cigarette filter.
AUTHOR(S): Hersh, T. [Reprint author]; Reznick, A. Z.; Nagler, R.
CORPORATE SOURCE: Thione International, Inc., Atlanta, GA, USA
SOURCE: AAAS Annual Meeting and Science Innovation Exposition, (14-19 February, 2002) Vol. 168, pp. A94. print.
Meeting Info.: Annual Meeting of the American Association for the Advancement of Science. Boston, MA, USA. February 14-19, 2002.
DOCUMENT TYPE: Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 7 Aug 2002
Last Updated on STN: 7 Aug 2002

L9 ANSWER 3 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:399542 BIOSIS
DOCUMENT NUMBER: PREV200200399542
TITLE: Modulation of apoptosis and improved redox metabolism with the use of a new antioxidant formula.
AUTHOR(S): Mosca, Luciana [Reprint author]; Marcellini, Sonia; Perluigi, Marzia; Mastroiacovo, Paola; Moretti, Sonia; Famularo, Giuseppe; Peluso, Ilaria; Santini, Gino; De Simone, Claudio
CORPORATE SOURCE: Department of Biochemical Sciences, Faculty of Medicine, University of Rome La Sapienza, p. le Aldo Moro 5, 00185, Rome, Italy
luciana.mosca@uniroma1.it
SOURCE: Biochemical Pharmacology, (1 April, 2002) Vol. 63, No. 7, pp. 1305-1314. print.
CODEN: BCPCA6. ISSN: 0006-2952.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 24 Jul 2002
Last Updated on STN: 29 Aug 2002
AB Oxidative stress is involved in the pathogenesis of a wide spectrum of diseases, implicating that strategies directed at counterbalancing oxidative processes could have a role in clinical medicine. There is also an evidence that oxidative stress acts as a major determinant of apoptotic cell death. Many studies have reported favourable effects of antioxidant formulas on several parameters of the oxidant-antioxidant balance, but none of them has focused whether antioxidant formulas could modulate apoptosis. We investigated in 20 healthy individuals the effect of supplementation with a formula containing alpha-tocopherol, alpha-lipoic acid, coenzyme Q10, carnitines, and selenomethionine, on plasma oxidant status and peroxide levels, erythrocyte antioxidant enzymes, lymphocyte apoptosis, and generation of ROS at the mitochondrial level. Control subjects received only carnitines or an incomplete formula with alpha-tocopherol, alpha-lipoic acid, coenzyme Q10, and selenomethionine. Supplementation with the complete formula resulted in a significant increase in the plasma antioxidant status that was mirrored by a decrease in blood peroxide levels and a reduced generation of ROS at the mitochondrial level. This was associated with a significant decrease in the frequency of peripheral blood lymphocytes, with either CD4 or CD8 phenotype. undergoing apoptosis. Less consistent results were found when either incomplete formula was used. Our study suggests that supplementation with antioxidant formulas can modulate the process of apoptosis under in vivo conditions. The clinical potential of this strategy in the treatment of diseases with an elevated commitment to apoptosis should be explored.

L9 ANSWER 4 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:162190 BIOSIS
DOCUMENT NUMBER: PREV200200162190
TITLE: Comparative tissue-specific toxicities of 20 cancer preventive agents using cultured cells from 8 different normal human epithelia.
AUTHOR(S): Elmore, Eugene [Reprint author]; Luc, Thanh-Thuy; Steele, Vernon E.; Redpath, J. Leslie
CORPORATE SOURCE: Department of Radiation Oncology, Irvine Medical Sciences I, University of California, B149, Irvine, CA, 92697, USA
eelmore@uci.edu

SOURCE: In Vitro and Molecular Toxicology, (Fall, 2001) Vol. 14, No. 3, pp. 191-207. print. ISSN: 1097-9336.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 21 Feb 2002 Last Updated on STN: 26 Feb 2002

AB Comparative toxicity was determined for twenty potential chemopreventive agents in the Human Epithelial Cell Cytotoxicity (HECC) Assay using epithelial cell cultures from eight different tissues including: skin, kidney, breast, bronchus, cervix, prostate, oral cavity, and liver. The endpoints assessed were inhibition of: growth at 3 and 5 days; mitochondrial function; and proliferating cell nuclear antigen or albumin expression. Difluoromethylornithine (DFMO), s-allylcysteine, dehydroepiandrosterone (DHEA) analogue 8543, l-selenomethionine, and vitamin E acetate were not toxic or only produced mild toxicity with all endpoints in all eight cell types. N-acetyl-l-cysteine, calcium chloride, DHEA, genistein, ibuprofen, indole-3-carbinol, 4-hydroxyphenylretinamide (4-HPR), oltipraz, piroxicam, phenylethyl isothiocyanate, 9-cis-retinoic acid, and p-xylylselenocyanate each showed at least a 10-fold decrease in their TC50 (toxic concentration that inhibited growth by 50%) for at least one endpoint with one or more cell types. For some agents such as DHEA and piroxicam, the TC50S for growth inhibition were 10-fold lower after 5 days compared with 3 days. Unique tissue-specific toxicity was observed for each toxic agent suggesting that tissue-specific effects are the rule rather than the exception. The HECC Assay is effective in identifying tissue-specific toxicity for chemopreventive agents and may help to identify potential toxicity problems in phase I human clinical trials.

L9 ANSWER 5 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 2001:573084 BIOSIS
DOCUMENT NUMBER: PREV200100573084
TITLE: Crystallization and preliminary X-ray crystallographic analysis of native and selenomethionyl recombinant tabtoxin-resistance protein complexed with acetyl -coenzyme A.
AUTHOR(S): He, Hongzhen; Ding, Yi; Cao, Zhenbo; Shao, Yu; Bartlam, Mark; Tang, Hong; Jiang, Fan; Liu, Yiwei; Liu, Jinyuan; Zhao, Nanming; Rao, Zihe [Reprint author]
CORPORATE SOURCE: Laboratory of Structural Biology, School of Life Science and Engineering, Tsinghua University, Beijing, 100084, China
raozh@xtal.tsinghua.edu.cn
SOURCE: Acta Crystallographica Section D Biological Crystallography, (November, 2001) Vol. 57, No. 11, pp. 1729-1731. print. ISSN: 0907-4449.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 12 Dec 2001 Last Updated on STN: 25 Feb 2002

AB Tabtoxin-resistance protein (TTR), an acetyltransferase from Pseudomonas syringae pv. tabaci, was overexpressed in Eschericha coli M15 and the TTR fusion protein complexed with acetyl-coenzyme A (AcCoA) was purified and crystallized. Diffraction data were collected to 3.0 ANG resolution in-house and the crystal was found to belong to space group P21, with unit-cell parameters a=47.6, b=66.6, c=53.5 ANG, beta=104.3degree. Furthermore, a selenomethionine (SeMet) TTR fusion protein derivative was overexpressed in the same expression system and its complex with AcCoA was purified in a reductive environment. The SeMet TTR derivative crystallized in two forms: the first was identical to

that observed for native crystals and the second belonged to space group C2, with unit-cell parameters a=101.7, b=45.6, c=84.2 ANG, beta=105.8degree. Data from the P21 crystal form were collected in-house to 2.3 ANG resolution. Subsequently, three different wavelength data sets of the C2 crystal form to 1.55 ANG resolution were collected at the Advanced Photon Source at Argonne National Laboratory.

L9 ANSWER 6 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 2001:393931 BIOSIS
DOCUMENT NUMBER: PREV200100393931
TITLE: Assessing tissue specific toxicity of chemopreventive agents in cultures from normal human tissues.
AUTHOR(S): Elmore, E. [Reprint author]; Luc, T.-T. [Reprint author]; Kelloff, G. J.; Steele, V. E.; Redpath, J. L. [Reprint author]
CORPORATE SOURCE: Department of Radiation Oncology, University of California Irvine, Irvine, CA, 92697, USA
eelmore@uci.edu
SOURCE: In Vitro Cellular and Developmental Biology Animal, (March, 2001) Vol. 37, No. 3 Part 2, pp. 46.A. print.
Meeting Info.: Congress on In Vitro Biology. St. Louis, Missouri, USA. June 16-20, 2001. Society for In Vitro Biology.
ISSN: 1071-2690.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LANGUAGE: English
ENTRY DATE: Entered STN: 15 Aug 2001
Last Updated on STN: 22 Feb 2002

L9 ANSWER 7 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 2000:202689 BIOSIS
DOCUMENT NUMBER: PREV200000202689
TITLE: Crystal structure of Escherichia coli malate synthase G complexed with magnesium and glyoxylate at 2.0 ANG resolution: Mechanistic implications.
AUTHOR(S): Howard, Bruce R.; Endrizzi, James A.; Remington, S. James [Reprint author]
CORPORATE SOURCE: Institute of Molecular Biology and Departments of Chemistry and Physics, University of Oregon, Eugene, OR, 97403, USA
SOURCE: Biochemistry, (March 21, 2000) Vol. 39, No. 11, pp. 3156-3168. print.
CODEN: BICHAW. ISSN: 0006-2960.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 24 May 2000
Last Updated on STN: 5 Jan 2002
AB The crystal structure of selenomethionine-substituted malate synthase G, an 81 kDa monomeric enzyme from Escherichia coli has been determined by MAD phasing, model building, and crystallographic refinement to a resolution of 2.0 ANG. The crystallographic R factor is 0.177 for 49 242 reflections observed at the incident wavelength of 1.008 ANG, and the model stereochemistry is satisfactory. The basic fold of the enzyme is that of a beta8/alpha8 (TIM) barrel. The barrel is centrally located, with an N-terminal alpha-helical domain flanking one side. An inserted beta-sheet domain folds against the opposite side of the barrel, and an alpha-helical C-terminal domain forms a plug which caps the active site. Malate synthase catalyzes the condensation of glyoxylate and acetyl-coenzyme A and hydrolysis of the intermediated to yield malate and coenzyme A, requiring Mg2+. The structure reveals an

enzyme-substrate complex with glyoxylate and Mg2+ which coordinates the aldehyde and carboxylate functions of the substrate. Two strictly conserved residues, Asp631 and Arg338, are proposed to provide concerted acid-base chemistry for the generation of the enol(ate) intermediate of acetyl-coenzyme A, while main-chain hydrogen bonds and bound Mg2+ polarize glyoxylate in preparation for nucleophilic attack. The catalytic strategy of malate synthase appears to be essentially the same as that of citrate synthase, with the electrophile activated for nucleophilic attack by nearby positive charges and hydrogen bonds, while concerted acid-base catalysis accomplishes the abstraction of a proton from the methyl group of acetyl-coenzyme A. An active site aspartate is, however, the only common feature of these two enzymes, and the active sites of these enzymes are produced by quite different protein folds. Interesting similarities in the overall folds and modes of substrate recognition are discussed in comparisons of malate synthase with pyruvate kinase and pyruvate phosphate dikinase.

L9 ANSWER 8 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1997:290834 BIOSIS
DOCUMENT NUMBER: PREV199799590037
TITLE: Chalcogen-analogs of amino acids. Their use in X-ray crystallographic and folding studies of peptides and proteins.
AUTHOR(S): Besse, Doerthe; Budisa, Nediljko; Karnbrock, Wilhelm; Minks, Caroline; Musiol, Hans-Juergen; Pegoraro, Stefano; Siedler, Frank; Weyher, Elisabeth; Moroder, Luis [Reprint author]
CORPORATE SOURCE: Max-Planck-Institut fuer Biochemie, Am Klopferspitz 18a, D-82152 Martinsried, Germany
SOURCE: Biological Chemistry, (1997) Vol. 378, No. 3-4, pp. 211-218.
ISSN: 1431-6730.
DOCUMENT TYPE: Article
General Review; (Literature Review)
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Jul 1997
Last Updated on STN: 9 Jul 1997

AB Using methionine-auxotrophic Escherichia coli strains quantitative biosynthetic replacement of the methionine residues by seleno- and telluromethionine but not by methoxinine was achieved in various model proteins, clearly indicating a limited tolerance in the editing range of methionyl-tRNA synthetase. For expression of the protein variants the acetyl derivatives of the chalcogen-analogs of methionine, obtained by a new and highly efficient synthetic procedure, proved to be the ideal source in the growth media as they were found to be significantly more stable than the underivatized methionine analogs. The conformational properties in solution, the folding and unfolding parameters as well as X-ray crystallographic data confirmed the highly isomorphous character of the atomic mutants and thus the usefulness of this concept in X-ray analysis of proteins. Quantitative replacement of cysteine residues by selenocysteine has recently been achieved using cysteine-auxotrophic E. coli strains, but a selective replacement of cysteine residues by employing the natural translational machinery of selenocysteine is also conceivable. We have therefore performed a detailed study on synthetic selenocysteine-peptides in order to determine the redox potential of this cysteine analog, and thus the ability of related peptide and protein analogs to undergo the correct oxidative folding. Since the redox potential of selenocysteine was found to be significantly more reducing than that of the parent amino acid, selective formation of a diselenide bridge in presence of additional cysteine residues is highly favored as well documented in the case of the synthetic bis-selenocysteine-endothelin I analog. These results confirm that even

cysteine residues may represent an interesting target for the design and expression of isomorphous heteroatomic analogs of proteins.

L9 ANSWER 9 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1983:297051 BIOSIS
DOCUMENT NUMBER: PREV198376054543; BA76:54543
TITLE: STIMULATION OF FIBRINOGEN BIOSYNTHESIS BY FIBRINOGEN FRAGMENT D AND FRAGMENT E.
AUTHOR(S): BELL W R [Reprint author]; KESSLER C M; TOWNSEND R R
CORPORATE SOURCE: DEP MED, DIV HEMATOL, JOHNS HOPKINS UNIV SCH MED, BALTIMORE, MD 21205, USA
SOURCE: British Journal of Haematology, (1983) Vol. 53, No. 4, pp. 599-610.
CODEN: BJHEAL. ISSN: 0007-1048.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
AB Infusions of either fibrinogen fragment D or fibrinogen fragment E into rabbits were followed by increases in fibrinogen synthesis determined by the rate of incorporation of 75Se-selenomethionine into circulating fibrinogen. The degree of stimulation was proportional to the amount of protein infused. When 4.5 mg of each fibrinogen fragment was administered separately to different groups of animals, fibrinogen fragment D was associated with a 4-fold increase in fibrinogen synthesis above that in the control animals compared with 1.5-fold increase induced by fragment E. Fragments D and E were assayed for bound sialic acid, the absence of which facilitates binding, transport and catabolism of many circulating glycoproteins by the liver. Fibrinogen fragment D contained 1.3% sialic acid compared to 1.4% in fragment E. Conservation of sialic acid during plasmic digestion of fibrinogen is indicated. The capacity of these glycopolypeptide fragments to stimulate fibrinogen synthesis appears unrelated to the nearly identical quantities of N-acetyl neuraminic acid found in each fragment.

L9 ANSWER 10 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1982:152843 BIOSIS
DOCUMENT NUMBER: PREV198273012827; BA73:12827
TITLE: FEEDBACK INHIBITION BY METHIONINE AND S ADENOSYL METHIONINE AND DE SENSITIZATION OF HOMO SERINE O ACETYL TRANSFERASE EC-2.3.1.31 IN BREVIBACTERIUM-FLAVUM.
AUTHOR(S): SHIIO I [Reprint author]; OZAKI H
CORPORATE SOURCE: CENTRAL RESEARCH LABORATORIES, AJINOMOTO CO, INC, KAWASAKI-KU, KAWASAKI, KANAGAWA 210
SOURCE: Journal of Biochemistry (Tokyo), (1981) Vol. 89, No. 5, pp. 1493-1500.
CODEN: JOBIAO. ISSN: 0021-924X.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
AB Homoserine O-acetyltransferase [EC 2.3.1.31] partially purified from B. flavum was specifically inhibited by the metabolic end products methionine and S-adenosylmethionine only when the enzymatic reaction was performed in the presence of cysteine or dithiothreitol, or after the preincubation of the enzyme with either of the SH compounds. p-Hydroxymercuribenzoate desensitized the enzyme to inhibition. Concentrations of methionine and S-adenosylmethionine giving 50% inhibition were 4.8 and 0.26 mM, respectively, and 0.5 mM S-adenosylmethionine showed almost complete inhibition. No synergistic action by the 2 inhibitors was found. Optimum pH were 7.5 and 8.5 for the inhibition by methionine and S-adenosylmethionine, respectively. The inhibitions by the former and the latter were of mixed type and noncompetitive, respectively, with respect

to both substrates, homoserine and acetyl-CoA. Plots of the reaction rate against concentration of the inhibitors were sigmoidal, indicating the presence of cooperativity. N-Formylmethionine, α-methylmethionine, trifluoromethionine, selenomethionine, ethionine or S-adenosylhomocysteine inhibited the enzyme to almost the same extent as methionine or S-adenosylmethionine. The enzyme irreversibly lost sensitivity to inhibition during extraction or storage. Sensitivity was retained by the addition of cysteine, dithiothreitol, homoserine (substate) or glycerol.

L9 ANSWER 11 OF 20 EMBASE

ACCESSION NUMBER: 2002336382 EMBASE

TITLE: Peroxynitrite triggers a delayed resistance of coronary endothelial cells against ischemia-reperfusion injury.

AUTHOR: Laude K.; Thuillez C.; Richard V.

CORPORATE SOURCE: V. Richard, INSERM E9920, Faculte de Medecine, 22 Bd Gambetta, 76183 Rouen Cedex, France. Vincent.Richard@univ-rouen.fr

SOURCE: American Journal of Physiology - Heart and Circulatory Physiology, (Oct 2002) Vol. 283, No. 4 52-4, pp. H1418-H1423.
Refs: 27
ISSN: 0363-6135 CODEN: AJPPDI

COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 018 Cardiovascular Diseases and Cardiovascular Surgery
002 Physiology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 10 Oct 2002
Last Updated on STN: 10 Oct 2002

AB Experiments were designed to test whether nitric oxide (NO) and peroxynitrite trigger delayed coronary endothelial protection induced by preconditioning (PC) in rats. Prolonged ischemia reperfusion markedly reduced the response of isolated coronary arteries to acetylcholine, and this was prevented by PC performed 24 h earlier. The NO synthase (NOS) inhibitor N(G)-nitro-L-arginine methyl ester (L-NAME) administered during PC abolished its delayed endothelial protective effect, whereas the inducible NOS inhibitor N-(3(aminomethyl)benzyl)acetaminide had no effect. Delayed endothelial PC was also abolished by the peroxynitrite scavengers selenomethionine or uric acid given during PC. In parallel, the NO/peroxynitrite donor S-morpholinosydnonimine and authentic peroxynitrite, administered 24 h before prolonged ischemia-reperfusion mimicked endothelial PC, whereas the NO donor S-nitroso-N-acetylpencillamine had no effect. This suggests that peroxynitrite is an essential trigger of the delayed coronary endothelial protection induced by PC in rat hearts.

L9 ANSWER 12 OF 20 EMBASE

ACCESSION NUMBER: 2002075160 EMBASE

TITLE: Redox regulation of cytosolic glycerol-3-phosphate dehydrogenase: Cys(102) is the target of the redox control and essential for the catalytic activity.

AUTHOR: Kim J.-Y.; Park H.-S.; Kang S.I.; Choi E.-J.; Kim I.Y.

CORPORATE SOURCE: I.Y. Kim, Laboratory of Cellular Biochemistry, Graduate School of Biotechnology, Korea University, 1-5 Anam-dong, Sungbuk-ku, Seoul 136-701, Korea, Republic of. ickkim@korea.ac.kr

SOURCE: Biochimica et Biophysica Acta - General Subjects, (15 Jan 2002) Vol. 1569, No. 1-3, pp. 67-74.

Refs: 54
ISSN: 0304-4165 CODEN: BBGSB3
PUBLISHER IDENT.: S 0304-4165(01)00236-7
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 7 Mar 2002
Last Updated on STN: 7 Mar 2002

AB Cytosolic glycerol-3-phosphate dehydrogenase (cG3PDH) occupies the branch point between the glycolytic pathway and triglyceride biosynthesis. However, the regulatory mechanism of the cG3PDH activity has remained obscure. Here we report that cG3PDH is efficiently inhibited by modification of the thiol group through a redox mechanism. In this study, we found that sodium selenite and nitric oxide (NO) donors such as S-nitroso-N-acetylpenicillamine and 3-morpholinosydnonimine inhibited cG3PDH activity, and that similar effects could be achieved with selenium metabolites such as selenocysteine and selenomethionine. Furthermore, we found that reducing agents, such as dithiothreitol and β-mercaptoethanol, restored the cG3PDH activity suppressed by selenite and NO both in vitro and in cultured cells. Buthionine sulfoximine depleted levels of both reduced glutathione and the oxidized form but had no effect on the suppression of cG3PDH activity by selenite in cultured cells. Moreover, thiol-reactive agents, such as N-ethylmaleimide and o-iodosobenzoic acid, blocked the enzyme activity of cG3PDH through the modification of redox-sensitive cysteine residues in cG3PDH. The inhibitor of NO synthase, L-N(G)-nitro-arginine, restored the cG3PDH activity inhibited by NO in cultured cells, whereas the inhibitor of guanylyl cyclase, 1H-[1,2,4] oxadiazole[4,3-α] quinoxalin-1-one (ODQ), has no effect. NO directly inhibits cG3PDH activity not via a cGMP-dependent mechanism. Finally, using site-directed mutagenesis, we found that Cys(102) of cG3PDH was sensitive to both selenite and NO. From the results, we suggest that cG3PDH is a target of cellular redox regulation. .COPYRGT. 2002 Elsevier Science B.V. All rights reserved.

ACCESSION NUMBER: 2001100222 EMBASE
TITLE: Stimulation of megakaryocytopoiesis and platelet production during growth of an experimental lymphoma.
AUTHOR: Ray M.R.
CORPORATE SOURCE: Dr. M.R. Ray, Experimental Hematology Unit, Chittaranjan Natl. Cancer Institute, 37, S.P. Mukherjee Road, Calcutta-700 026, India. cncinst@giasc101.vsn1.net.in
SOURCE: Journal of Experimental and Clinical Cancer Research, (2000) Vol. 19, No. 4, pp. 505-511.
Refs: 34
ISSN: 0392-9078 CODEN: JECRDN
COUNTRY: Italy
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
025 Hematology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 29 Mar 2001
Last Updated on STN: 29 Mar 2001

AB The effect of malignant tumor growth on host's megakaryocytopoiesis and platelet production was studied in mice bearing transplantable Dalton's lymphoma. Tumor growth was paralleled by thrombocytosis, neutrophilia, and anemia. Platelet (51)Cr half-life was normal but incorporation of (75)Selenomethionine into circulating platelets was

significantly enhanced in the tumor bearers suggesting stimulated thrombopoiesis while platelet life span remained unchanged. Megakaryocytes and their precursors, the small acetyl cholinesterase positive cells, were found in increased numbers in the bone marrow (BM) and particularly in the spleen where five to eight-fold rise was observed at the log phase of tumor growth. In addition, a remarkable increase in the number of megakaryocyte progenitors (CFU-MK and MK CFU-S) was observed both in the BM and spleen. Stimulation of these progenitors was more pronounced in the spleen than in the marrow, and the change was noticeable even from the third day of tumor bearing. Therefore, the results suggest that thrombocytosis associated with the growth of this experimental lymphoma was due to accelerated platelet production following stimulated megakaryocytopoiesis especially in the spleen.

L9 ANSWER 14 OF 20 EMBASE

ACCESSION NUMBER: 1985089356 EMBASE
TITLE: Incorporation and distribution of selenium into thiolase from Clostridium kluyveri.
AUTHOR: Sliwkowski M.X.; Stadtman T.C.
CORPORATE SOURCE: Laboratory of Biochemistry, National Heart, Lung, and Blood Institute, National Institutes of Health, Bethesda, MD 20205, United States
SOURCE: Journal of Biological Chemistry, (1985) Vol. 260, No. 5, pp. 3140-3144.
ISSN: 0021-9258 CODEN: JBCHA3
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
LANGUAGE: English
ENTRY DATE: Entered STN: 10 Dec 1991
Last Updated on STN: 10 Dec 1991

AB Clostridium kluyveri incorporates selenium as selenomethionine into its acetoacetyl-CoA thiolase when grown in media containing normal sulfur-to-selenium ratios. Antibodies raised against the purified enzyme permitted quantitative immunoprecipitation of thiolase from crude cell extracts and thus facilitated the systematic analysis of the effects of wide variation in sulfur-to-selenium ratios on selenium incorporation into the enzyme. The extent of incorporation of selenium into thiolase was found to be dependent on the form of selenium supplied. When [(75)Se] selenomethionine was the source of selenium, the incorporation of selenium into thiolase was inversely proportional to the level of added methionine. However, similar levels of methionine failed to decrease the incorporation of selenium from selenite. To study the location of selenomethionine and methionine residues in the polypeptide chain of the enzyme, thiolase was prepared from cells cultured in the presence of H(2) (35)SO(4) or Na(2) (75)SeO(3). The (35)S- or (75)Se-labeled protein was treated with trypsin and the resulting peptides were isolated by reverse phase high performance liquid chromatography. The peptide maps of the enzyme indicated that selenium was distributed throughout the primary structure in a manner that paralleled methionine. From these studies, it is concluded that selenium occurs in thiolase adventitiously and is not required for any biological function.

L9 ANSWER 15 OF 20 EMBASE

ACCESSION NUMBER: 1982252140 EMBASE
TITLE: Isolation of a selenium-containing thiolase from Clostridium kluyveri: Identification of the selenium moiety as selenomethionine.
AUTHOR: Hartmanis M.G.N.; Stadtman T.C.

CORPORATE SOURCE: Lab. Biochem., Natl. Heart Lung Blood Inst., NIH, Bethesda, MD 20205, United States
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1982) Vol. 79, No. 16 I, pp. 4912-4916.
ISSN: 0027-8424 CODEN: PNASA6
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 022 Human Genetics
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Dec 1991
Last Updated on STN: 9 Dec 1991

L9 ANSWER 16 OF 20 MEDLINE on STN
ACCESSION NUMBER: 2003564160 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14646106
TITLE: Crystallization and preliminary X-ray analysis of N-acetyl-1-D-myo-inosityl-2-deoxy-alpha-D-glucopyranoside deacetylase (MshB) from Mycobacterium tuberculosis.
AUTHOR: McCarthy Andrew A; Knijff Rainer; Peterson Neil A; Baker Edward N
CORPORATE SOURCE: School of Biological Sciences, University of Auckland, Auckland, New Zealand.
SOURCE: Acta crystallographica. Section D, Biological crystallography, (2003 Dec) Vol. 59, No. Pt 12, pp. 2316-8. Electronic Publication: 2003-11-27.
Journal code: 9305878. ISSN: 0907-4449.
PUB. COUNTRY: Denmark
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200408
ENTRY DATE: Entered STN: 16 Dec 2003
Last Updated on STN: 11 Aug 2004
Entered Medline: 10 Aug 2004
AB Mycobacteria synthesize mycothiol (MSH) as a low-molecular-weight thiol that protects against oxidative stress in a similar role to that of glutathione in many other species. The absence of MSH in mammals suggests that enzymes from its biosynthetic pathway in Mycobacterium tuberculosis could be useful targets for drug design. The gene for MshB (Rv1170), the enzyme that catalyses the second step in MSH biosynthesis in M. tuberculosis, has been cloned and the protein has been expressed in Escherichia coli both in native and SeMet-substituted forms and crystallized in two crystal forms. One of these, prepared in the presence of beta-octylglucoside as a key additive, is suitable for high-resolution X-ray structural analysis. The crystals are orthorhombic, with unit-cell parameters a = 71.69, b = 83.74, c = 95.65 A, space group P2(1)2(1)2(1) and two molecules in the asymmetric unit. X-ray diffraction data to 1.9 A resolution have been collected.

L9 ANSWER 17 OF 20 MEDLINE on STN
ACCESSION NUMBER: 2003021009 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12527305
TITLE: Crystal structure of tabtoxin resistance protein complexed with acetyl coenzyme A reveals the mechanism for beta-lactam acetylation.
AUTHOR: He Hongzhen; Ding Yi; Bartlam Mark; Sun Fei; Le Yi; Qin Xincheng; Tang Hong; Zhang Rongguang; Joachimiak Andrzej;

Liu Jinyuan; Zhao Nanming; Rao Zihe
CORPORATE SOURCE: Laboratory of Structural Biology, and MOE Laboratory of Protein Science, School of Life Sciences and Engineering, Tsinghua University, 100084, Beijing, People's Republic of China.
SOURCE: Journal of molecular biology, (2003 Jan 31) Vol. 325, No. 5, pp. 1019-30.
Journal code: 2985088R. ISSN: 0022-2836.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: PDB-1GHE
ENTRY MONTH: 200302
ENTRY DATE: Entered STN: 16 Jan 2003
Last Updated on STN: 25 Feb 2003
Entered Medline: 24 Feb 2003

AB Tabtoxin resistance protein (TTR) is an enzyme that renders tabtoxin-producing pathogens, such as Pseudomonas syringae, tolerant to their own phytotoxins. Here, we report the crystal structure of TTR complexed with its natural cofactor, acetyl coenzyme A (AcCoA), to 1.55A resolution. The binary complex forms a characteristic "V" shape for substrate binding and contains the four motifs conserved in the GCN5-related N-acetyltransferase (GNAT) superfamily, which also includes the histone acetyltransferases (HATs). A single-step mechanism is proposed to explain the function of three conserved residues, Glu92, Asp130 and Tyr141, in catalyzing the acetyl group transfer to its substrate. We also report that TTR possesses HAT activity and suggest an evolutionary relationship between TTR and other GNAT members.

L9 ANSWER 18 OF 20 MEDLINE on STN
ACCESSION NUMBER: 2000200101 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10733911
TITLE: Expression, purification, and crystallization of the Escherichia coli selenomethionyl beta-ketoacyl-acyl carrier protein synthase III.
AUTHOR: Khandekar S S; Konstantinidis A K; Silverman C; Janson C A; McNulty D E; Nwagwu S; Van Aller G S; Doyle M L; Kane J F; Qiu X; Lonsdale J
CORPORATE SOURCE: Department of Protein Biochemistry, SmithKline Beecham Pharmaceuticals, King of Prussia, Pennsylvania 19406, USA.. Sanjay_Khandekar-1@sbphrd.com
SOURCE: Biochemical and biophysical research communications, (2000 Apr 2) Vol. 270, No. 1, pp. 100-7.
Journal code: 0372516. ISSN: 0006-291X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200005
ENTRY DATE: Entered STN: 12 May 2000
Last Updated on STN: 12 May 2000
Entered Medline: 4 May 2000

AB Bacterial beta-ketoacyl-acyl carrier protein (ACP) synthase III (KAS III, also called FabH) catalyzes the condensation and transacylation of acetyl-CoA with malonyl-ACP. In order to understand the mode of enzyme/substrate interaction and design small molecule inhibitors, we have expressed, purified, and crystallized a selenomethionyl-derivative of E. coli KAS III. Several lines of evidence confirmed that purified selenomethionyl KAS III was homogenous, stably folded, and enzymatically

active. Dynamic light scattering, size exclusion chromatography, and mass spectrometry results indicated that selenomethionyl KAS III is a noncovalent homodimer. Diffraction quality crystals of selenomethionyl KAS III/acetyl-CoA complex, which grew overnight to a size of 0.2 mm(3), belonged to the tetragonal space group P4(1)2(1)2.

L9 ANSWER 19 OF 20 MEDLINE on STN
ACCESSION NUMBER: 85060502 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6150419
TITLE: Characterization of selenomethionine in proteins.
AUTHOR: Sliwkowski M X
SOURCE: Methods in enzymology, (1984) Vol. 107, pp. 620-3.
Journal code: 0212271. ISSN: 0076-6879.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198412
ENTRY DATE: Entered STN: 20 Mar 1990
Last Updated on STN: 6 Feb 1998
Entered Medline: 26 Dec 1984

L9 ANSWER 20 OF 20 MEDLINE on STN
ACCESSION NUMBER: 77020487 MEDLINE
DOCUMENT NUMBER: PubMed ID: 970934
TITLE: Methionine overproduction by Saccharomycopsis lipolytica.
AUTHOR: Morzycka E; Sawnor-Korszynska D; Paszewski A; Grabski J; Raczynska-Bojanowska K
SOURCE: Applied and environmental microbiology, (1976 Jul) Vol. 32, No. 1, pp. 125-30.
Journal code: 7605801. ISSN: 0099-2240.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197612
ENTRY DATE: Entered STN: 13 Mar 1990
Last Updated on STN: 29 Jan 1999
Entered Medline: 1 Dec 1976
AB Six ethionine-resistant (Etr) regulatory mutants of Saccharomycopsis lipolytica S1/1 overproducing methionine have been isolated. Five of them are also resistant to seleno-methionine. The activity of homocysteine synthase (O-acetyl-L-hormoserine-acetate lyase, adding hydrogen sulfide) is derepressed in these mutants and is not susceptible to the methionine-mediated repression. The pool of free methionine in Etr mutants is enhanced 1.5 to 18 times, and incorporation of 35S into methionine is 1.5 to 50 times higher than that in the wild strain. Neither accumulation of endogenous free methionine in Etr mutants nor the uptake of exogenous methionine is accompanied by an increase in the S-adenosylmethionine pool. This implies compartmentation of methionine metabolism in S. lipolytica.

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ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
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NEWS 2	OCT 02	CA/CAplus enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS 3	OCT 19	BEILSTEIN updated with new compounds
NEWS 4	NOV 15	Derwent Indian patent publication number format enhanced
NEWS 5	NOV 19	WPIX enhanced with XML display format
NEWS 6	NOV 30	ICSD reloaded with enhancements
NEWS 7	DEC 04	LINPADOCDB now available on STN
NEWS 8	DEC 14	BEILSTEIN pricing structure to change
NEWS 9	DEC 17	USPATOLD added to additional database clusters
NEWS 10	DEC 17	IMSDRUGCONF removed from database clusters and STN
NEWS 11	DEC 17	DGENE now includes more than 10 million sequences
NEWS 12	DEC 17	TOXCENTER enhanced with 2008 MeSH vocabulary in MEDLINE segment
NEWS 13	DEC 17	MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
NEWS 14	DEC 17	CA/CAplus enhanced with new custom IPC display formats
NEWS 15	DEC 17	STN Viewer enhanced with full-text patent content from USPATOLD
NEWS 16	JAN 02	STN pricing information for 2008 now available
NEWS 17	JAN 16	CAS patent coverage enhanced to include exemplified prophetic substances
NEWS 18	JAN 28	USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS 19	JAN 28	MARPAT searching enhanced
NEWS 20	JAN 28	USGENE now provides USPTO sequence data within 3 days of publication
NEWS 21	JAN 28	TOXCENTER enhanced with reloaded MEDLINE segment
NEWS 22	JAN 28	MEDLINE and LMEDLINE reloaded with enhancements
NEWS 23	FEB 08	STN Express, Version 8.3, now available
NEWS 24	FEB 20	PCI now available as a replacement to DPCI
NEWS 25	FEB 25	IFIREF reloaded with enhancements
NEWS 26	FEB 25	IMSPRODUCT reloaded with enhancements
NEWS 27	FEB 29	WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification

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AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

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 NEWS IPC8     For general information regarding STN implementation of IPC 8

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LOGINID:ssptacrs1614

PASSWORD:
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SESSION RESUMED IN FILE 'HOME' AT 10:12:36 ON 04 MAR 2008
FILE 'HOME' ENTERED AT 10:12:36 ON 04 MAR 2008
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.21       0.21

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Switching to the Registry File...
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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.21       0.21

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DICTIONARY FILE UPDATES:   3 MAR 2008  HIGHEST RN 1006431-93-1
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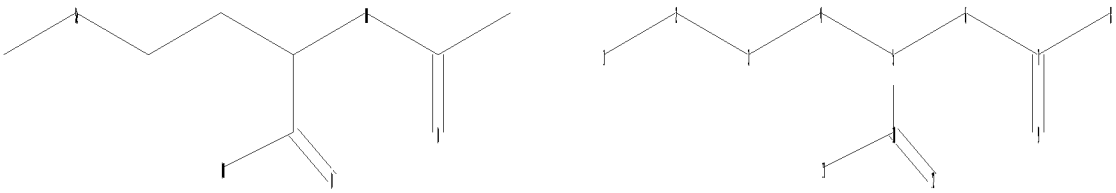


chain nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
1-2 2-3 3-4 4-5 5-6 5-10 6-7 7-8 7-9 10-11 10-12
exact/norm bonds :
1-2 2-3 5-6 6-7 7-9
exact bonds :
3-4 4-5 5-10 7-8
normalized bonds :
10-11 10-12

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS

L1   STRUCTURE UPLOADED

=> s l1 fam ful
FULL SEARCH INITIATED 10:13:07 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -   22 TO ITERATE

100.0% PROCESSED   22 ITERATIONS   2 ANSWERS
SEARCH TIME: 00.00.01

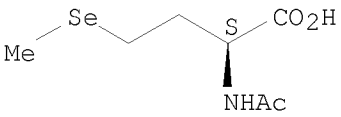
L2   2 SEA FAM FUL L1

=> d l2 1-2

L2   ANSWER 1 OF 2 REGISTRY COPYRIGHT 2008 ACS on STN
RN   210910-25-1 REGISTRY
ED   Entered STN: 06 Sep 1998
CN   Butanoic acid, 2-(acetylamino)-4-(methylseleno)-, (2S)- (CA INDEX NAME)
FS   STEREOSEARCH

MF C7 H13 N O3 Se
SR CA
LC STN Files: CA, CAPLUS, CHEMCATS, TOXCENTER, USPATFULL

Absolute stereochemistry.



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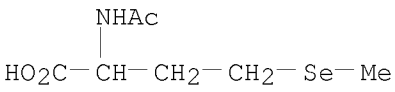
3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2008 ACS on STN
RN 174463-50-4 REGISTRY
ED Entered STN: 22 Mar 1996
CN Butanoic acid, 2-(acetylamino)-4-(methylseleno)- (CA INDEX NAME)
MF C7 H13 N O3 Se
SR CA
LC STN Files: CA, CAPLUS, CASREACT, CHEMCATS



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2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file capllus
'CAPLLUS' IS NOT A VALID FILE NAME
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that are available. If you have requested multiple files, you can
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accessing the remaining file names entered.

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FULL ESTIMATED COST	74.11	74.32

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FILE LAST UPDATED: 3 Mar 2008 (20080303/ED)

=> s l2
L3 5 L2

=> d l3 ibib abs 1-5

L3 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:14419 CAPLUS
DOCUMENT NUMBER: 142:114471
TITLE: Preparation of glycosylated amino acids, proteins and peptides via olefin metathesis reactions
INVENTOR(S): Davis, Benjamin Guy; Kramer, Holger Bernd Ralf
PATENT ASSIGNEE(S): Isis Innovation Limited, UK
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005000873	A1	20050106	WO 2004-GB2738	20040624

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 2003-14741 A 20030624

AB A method for the preparation of a glycosylated amino acid, protein or peptide comprises reacting an unprotected carbohydrate containing a carbon-carbon double bond (e.g., an allyl or vinyl C-glycoside) with an amino acid, a protein or a peptide containing a side-chain carbon-carbon double bond under olefin metathesis reaction conditions. The side-chain carbon-carbon double bond is introduced by (a) oxidizing the sulfur in methionine or the selenium in selenomethione or homoselenocysteine and (b) eliminating the sulfoxide or selenoxide. Thus, 3-(α-D-glucopyranosyl)propene, prepared by pivaloylation-allylation of glucose, was reacted with vinylglycine (vG) tripeptide Ac-vG-Ser-Phe-OMe in the presence of Grubbs-Hoveyda catalyst to afford the desired cross-metathesis product in mixture with the C-glycoside homodimer byproduct.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:467738 CAPLUS
DOCUMENT NUMBER: 141:17591
TITLE: Agent having a destructive effect on malignant tumors and method for the production
INVENTOR(S): Groke, Karl; Herwig, Ralf
PATENT ASSIGNEE(S): C.Y.L. Handelsges. m.b.H., Austria; Ferdinand, Peter
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004047832	A1	20040610	WO 2003-EP50712	20031013
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AT 2002001778	A	20040815	AT 2002-1778	20021127
AT 412447	B	20050325		
CA 2507273	A1	20040610	CA 2003-2507273	20031013
AU 2003285351	A1	20040618	AU 2003-285351	20031013
EP 1565176	A1	20050824	EP 2003-778338	20031013
EP 1565176	B1	20060524		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006508998	T	20060316	JP 2004-554531	20031013
AT 326958	T	20060615	AT 2003-778338	20031013
PT 1565176	T	20061031	PT 2003-778338	20031013
ES 2268452	T3	20070316	ES 2003-778338	20031013
US 2006292218	A1	20061228	US 2006-536777	20060907

PRIORITY APPLN. INFO.:			
AT 2002-1778	A	20021127	
EP 2003-778338	A	20031013	
WO 2003-EP50712	W	20031013	

AB Disclosed is an agent which has a destructive effect on malignant tumors and contains alpha-ketoglutaric acid, N-acetyl-seleno-L-methionine, N-acetyl-L-methionine, and a compound that is capable of forming azomethine and is selected among the group 5-hydroxymethylfurfural, dehydroascorbic acid, maltol, and vanillin as an active substance, 5-hydroxymethylfurfural being preferred. The inventive agent can be used in the form of an infusion, in an oral or rectal form of administration, or as an irrigation in cancer therapy. The treatment of cancer patients with the following infusion solution is reported: α-ketoglutaric acid 9.0 g/L; 5-hydroxymethyl furfural 3.0 g/L; N-acetyl-seleno-L-methionine 2.0 mg/L; N-acetyl-L-methionine 100.00 mg/L; glucose 30.0 g/L; sodium and potassium ions to set pH.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:485713 CAPLUS
DOCUMENT NUMBER: 129:146163

TITLE: Acylase I-catalyzed deacetylation of N-acetyl-L-cysteine and S-alkyl-N-acetyl-L-cysteines
AUTHOR(S): Uttamsingh, Vinita; Keller, D. A.; Anders, M. W.
CORPORATE SOURCE: Department of Pharmacology and Physiology, University of Rochester, Rochester, NY, 14642, USA
SOURCE: Chemical Research in Toxicology (1998), 11(7), 800-809
CODEN: CRTOEC; ISSN: 0893-228X
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The aminoacylase that catalyzes the hydrolysis of N-acetyl-L-cysteine (NAC) was identified as acylase I after purification by column chromatog. and electrophoretic anal. Rat kidney cytosol was fractionated by ammonium sulfate precipitation, and the proteins were separated by ion-exchange column chromatog., gel-filtration column chromatog., and hydrophobic interaction column chromatog. Acylase activity with NAC and N-acetyl-L-methionine (NAM), a known substrate for acylase I, as substrates coeluted during all chromatog. steps. Sodium dodecyl sulfate-polyacrylamide gel electrophoresis showed that the protein was purified to near homogeneity and had a subunit Mr of 43 000, which is identical with the Mr of acylase I from porcine kidney and bovine liver. N-Butylmalonic acid was a slow-binding inhibitor of acylase I and inhibited the deacetylation of NAC with a Ki of 192 ± 27 μM. These results show that acylase I catalyzes the deacetylation of NAC. The acylase I-catalyzed deacetylation of a range of S-alkyl-N-acetyl-L-cysteines, their carbon and oxygen analogs, and the selenium analog of NAM was also studied with porcine kidney acylase I. The specific activity of the acylase I-catalyzed deacetylation of these substrates was related to their calculated molar volumes and log P values. The S-alkyl-N-acetyl-L-cysteines with short (C0-C3) and unbranched S-alkyl substituents were good acylase I substrates, whereas the S-alkyl-N-acetyl-L-cysteines with long (>C3) and branched S-alkyl substituents were poor acylase I substrates. The carbon and oxygen analogs of S-methyl-N-acetyl-L-cysteine and the carbon analog of S-ethyl-N-acetyl-L-cysteine were poor acylase I substrates, whereas the selenium analog of NAM was a good acylase I substrate.

REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:722992 CAPLUS
DOCUMENT NUMBER: 127:331721
TITLE: L-methionine related L-amino acids by acylase cleavage of their corresponding N-acetyl-DL-derivatives
AUTHOR(S): Bommarius, Andreas S.; Drauz, Karlheinz; Gunther, Kurt; Knaup, Gunter; Schwarm, Michael
CORPORATE SOURCE: Degussa AG, Specialty Chemicals, R and D Fine Chemicals, Hanau, D-63403, Germany
SOURCE: Tetrahedron: Asymmetry (1997), 8(19), 3197-3200
CODEN: TASYE3; ISSN: 0957-4166
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 127:331721

AB Acylase I from Aspergillus oryzae is an even more useful enzyme than suggested so far. Besides standard amino acids such as L-Met, L-Val and L-Phe, a number of addnl. sulfur- and selenium-containing amino acids can be obtained at useful reaction rates and in very high enantiomeric purity by kinetic resolution of the resp. N-acetyl-DL-amino acids.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:30201 CAPLUS
DOCUMENT NUMBER: 124:203067
TITLE: A New Efficient Synthesis of Acetyltelluro- and Acetylselenomethionine and Their Use in the Biosynthesis of Heavy-Atom Protein Analogs
AUTHOR(S): Karnbrock, Wilhelm; Weyher, Elisabeth; Budisa, Nediljko; Huber, Robert; Moroder, Luis
CORPORATE SOURCE: Max-Planck-Institut fuer Biochemie, Martinsried, 82152, Germany
SOURCE: Journal of the American Chemical Society (1996), 118(4), 913-14
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 124:203067

AB N-Acetyl-DL-telluromethionine and N-acetyl-DL-selenomethionine were obtained in good yields upon reaction of racemic 2-(acetylamino)butyrolactone with MeTeLi and MeSeLi, resp., and their enantioselective hydrolysis with aminoacylase generated the related L-amino acids. The biosynthesis of all-Met(Te)- and all-Met(Se)-annexin V with the racemic acetyl derivs. was as efficient, if not better than the use of the related L-amino acids.

=> file registry

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	15.51	89.83

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-4.00	-4.00

FILE 'REGISTRY' ENTERED AT 10:14:40 ON 04 MAR 2008

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 3 MAR 2008 HIGHEST RN 1006431-93-1
DICTIONARY FILE UPDATES: 3 MAR 2008 HIGHEST RN 1006431-93-1

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TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

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http://www.cas.org/support/stngen/stndoc/properties.html

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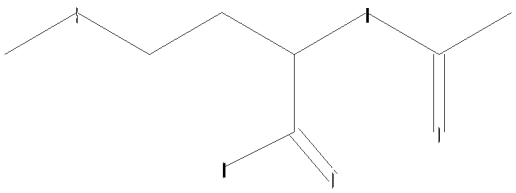

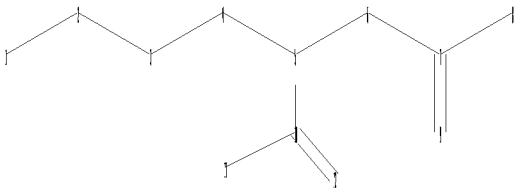

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chain bonds :
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exact/norm bonds :
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exact bonds :
3-4 4-5 5-10 7-8
normalized bonds :
10-11 10-12

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS

L4 STRUCTURE UPLOADED

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FULL SEARCH INITIATED 10:15:11 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 5099 TO ITERATE

100.0% PROCESSED 5099 ITERATIONS 67 ANSWERS
SEARCH TIME: 00.00.01

L5 67 SEA FAM FUL L4

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	70.11	159.94

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CA SUBSCRIBER PRICE	0.00	-4.00

FILE 'CAPLUS' ENTERED AT 10:15:20 ON 04 MAR 2008
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FILE LAST UPDATED: 3 Mar 2008 (20080303/ED)

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=> s l5
L6   764 L5

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         51418 CANCERS
        362693 CANCER
                  (CANCER OR CANCERS)
        442394 TUMOR
        166398 TUMORS
        493838 TUMOR
                  (TUMOR OR TUMORS)
        485178 NEOPLASM
         37030 NEOPLASMS
        502087 NEOPLASM
                  (NEOPLASM OR NEOPLASMS)
L7   26 L6 AND (CANCER OR TUMOR OR NEOPLASM)

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L7   ANSWER 1 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:961905 CAPLUS
DOCUMENT NUMBER: 143:260403
TITLE: Protein kinase inhibitors and methods for identifying
                          same
INVENTOR(S):   Lawrence, David S.
PATENT ASSIGNEE(S):   Albert Einstein College of Medicine of Yeshiva
                          University, USA
SOURCE: PCT Int. Appl., 116 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

     PATENT NO.   KIND   DATE   APPLICATION NO.   DATE
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     WO 2005079300   A2   20050901   WO 2005-US4410   20050214
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
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             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
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             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
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     US 2007254312   A1   20071101   US 2007-589029   20070621
PRIORITY APPLN. INFO.:   US 2004-544376P   P 20040213
                                           WO 2005-US4410   W 20050214

OTHER SOURCE(S): MARPAT 143:260403

AB Inhibitors of protein kinase C (PKC)α, PKCδ and PKCζ are provided which are selective for those PKC isotypes. Combinatorial libraries for identifying protein kinases are also provided, as are methods of identifying protein kinases using those libraries. Addnl., methods of treating a mammal having a deleterious condition, where the condition is dependent on a protein kinase for induction or severity, are provided. Methods of inhibiting protein kinases are also provided.

L7 ANSWER 2 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:540462 CAPLUS

DOCUMENT NUMBER: 143:83454

TITLE: Enlargement of mucocutaneous or cutaneous organs and sites with topical compositions containing N-acyl-aldosamine or N-acylamino acid compounds

INVENTOR(S): Yu, Ruey J.; Van Scott, Eugene J.

PATENT ASSIGNEE(S): USA

SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2005055947	A2	20050623	WO 2004-US41009		20041208
WO 2005055947	A3	20040825			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
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US 2005171194	A1	20050804	US 2004-6822		20041208
PRIORITY APPLN. INFO.:			US 2003-527307P	P	20031208
			US 2004-570895P	P	20040514

AB Compns. comprising a hydroxycarboxylic acid, N-acyl-aldosamine, N-acylamino acid or related compound on topical application are beneficial to plump and pout lips, enhance and firm eyelids, enlarge and augment breasts, elongate and expand penis. Because of antioxidant property, certain hydroxycarboxylic acids, N-acyl-aldosamines, N-acylamino acids and related compds. also are useful for topical administration to prevent occurrence of breast cancer or other forms of tumors and cancers. Thus 3 g N-propanoyl proline was dissolved in 9 mL water and 3 mL propylene glycol; the solution was mixed with 45 g hydrophobic ointment.

L7 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:515503 CAPLUS

DOCUMENT NUMBER: 141:71452

TITLE: Preparation of pyridine derivatives as JNK inhibitors

INVENTOR(S): Kallin, Elisabeth; Plobeck, Niklas; Swahn, Britt-Marie

PATENT ASSIGNEE(S): Astrazeneca Ab, Swed.

SOURCE: PCT Int. Appl., 98 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004052880	A1	20040624	WO 2003-SE1911	20031208
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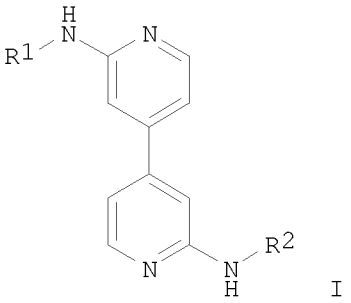
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003302919	A1	20040630	AU 2003-302919	20031208
PRIORITY APPLN. INFO.:			SE 2002-3654 A	20021209
			WO 2003-SE1911 W	20031208

OTHER SOURCE(S): MARPAT 141:71452
GI



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AB The title compds. [I; R1 = aryl or heteroaryl, each of which is optionally substituted with one or more of R3, OR3, OCOR3, COOR3, COR3, CONR3R4, NHCOR3, NR3R4, NHSO2R3, SO2R3, SO2NR3R4, SR3, CN, halo, NO2; R2 = R5, R6, COR5, COR6, CONHR5, CONHR6, CON(R6)2, COOR5, COOR6, SO2R5, SO2R6; R3, R4 = H, alkyl, cycloalkyl, etc.; R5 = (un)substituted (hetero)aryl; R6 = H, alkyl, cycloalkyl, etc.], were prepared and formulated. E.g., a 4-step synthesis of N,N'-bis[4-(trifluoromethyl)phenyl]-4,4'-bipyridine-2,2'-diamine, starting from 2-chloropyridine, was given. Typical Ki values for the compds. I are in the range of about 0.001 to about 10,000 nM in assay for inhibition of JNK3.

L7 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:467738 CAPLUS
DOCUMENT NUMBER: 141:17591
TITLE: Agent having a destructive effect on malignant tumors and method for the production
INVENTOR(S): Groke, Karl; Herwig, Ralf
PATENT ASSIGNEE(S): C.Y.L. Handelsges. m.b.H., Austria; Ferdinand, Peter
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004047832	A1	20040610	WO 2003-EP50712	20031013
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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AT 2002001778	A	20040815	AT 2002-1778	20021127
AT 412447	B	20050325		
CA 2507273	A1	20040610	CA 2003-2507273	20031013
AU 2003285351	A1	20040618	AU 2003-285351	20031013
EP 1565176	A1	20050824	EP 2003-778338	20031013
EP 1565176	B1	20060524		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006508998	T	20060316	JP 2004-554531	20031013
AT 326958	T	20060615	AT 2003-778338	20031013
PT 1565176	T	20061031	PT 2003-778338	20031013
ES 2268452	T3	20070316	ES 2003-778338	20031013
US 2006292218	A1	20061228	US 2006-536777	20060907

PRIORITY APPLN. INFO.:	AT 2002-1778	A	20021127
	EP 2003-778338	A	20031013
	WO 2003-EP50712	W	20031013

AB Disclosed is an agent which has a destructive effect on malignant tumors and contains alpha-ketoglutaric acid, N-acetyl-seleno-L-methionine, N-acetyl-L-methionine, and a compound that is capable of forming azomethine and is selected among the group 5-hydroxymethylfurfural, dehydroascorbic acid, maltol, and vanillin as an active substance, 5-hydroxymethylfurfural being preferred. The inventive agent can be used in the form of an infusion, in an oral or rectal form of administration, or as an irrigation in cancer therapy. The treatment of cancer patients with the following infusion solution is reported: α-ketoglutaric acid 9.0 g/L; 5-hydroxymethyl furfural 3.0 g/L; N-acetyl-seleno-L-methionine 2.0 mg/L; N-acetyl-L-methionine 100.00 mg/L; glucose 30.0 g/L; sodium and potassium ions to set pH.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:	2003:434321 CAPLUS
DOCUMENT NUMBER:	139:923
TITLE:	Methods and compositions for ameliorating the undesirable effects of chemotherapy
INVENTOR(S):	Kil, Jonathan; Lynch, Eric D.
PATENT ASSIGNEE(S):	Sound Pharmaceuticals Incorporated, USA
SOURCE:	PCT Int. Appl., 27 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003045334	A2	20030605	WO 2002-US38279	20021127

WO 2003045334 A3 20040226
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2466869	A1	20030605	CA 2002-2466869		20021127
AU 2002352982	A1	20030610	AU 2002-352982		20021127
US 2003157191	A1	20030821	US 2002-307245		20021127
EP 1461033	A2	20040929	EP 2002-789945		20021127
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK					
CN 1596111	A	20050316	CN 2002-823676		20021127
JP 2005510537	T	20050421	JP 2003-546839		20021127
US 2006089313	A1	20060427	US 2005-299084		20051209
PRIORITY APPLN. INFO.:			US 2001-334140P	P	20011129
			US 2002-307245	A1	20021127
			WO 2002-US38279	W	20021127

AB In one aspect, the present invention provides chemoprotectant compns. that comprise at least two of the chemoprotectants disclosed herein. The chemoprotectant compns. of the invention are useful, for example, for ameliorating at least one adverse effect of chemotherapy. In another aspect, the present invention provides methods of ameliorating at least one adverse effect of chemotherapy, the methods each comprising the step of administering to a subject undergoing chemotherapy an amount of a chemoprotectant composition that is effective to ameliorate at least one adverse effect of the chemotherapy. The chemoprotectants include glutathione or precursors thereof, antioxidants, and glutathione peroxidase mimics. For example, N-acetylcysteine, ebselen, and allopurinol, alone or in combination, did not inhibit the ability of cisplatin to kill cultured NuTu-19 ovarian cancer cells as measured using the MTS cell viability assay.

L7 ANSWER 6 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:608891 CAPLUS
DOCUMENT NUMBER: 137:304430
TITLE: L-Methionine Inhibits Reaction of DNA with Anticancer cis-Diamminedichloroplatinum(II)
AUTHOR(S): Vrana, Oldrich; Brabec, Viktor
CORPORATE SOURCE: Institute of Biophysics, Academy of Sciences of the Czech Republic, Brno, CZ-61265, Czech Rep.
SOURCE: Biochemistry (2002), 41(36), 10994-10999
CODEN: BICHAW; ISSN: 0006-2960
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Sufficient evidence has accumulated to identify DNA as the relevant pharmacol. target of antitumor cisplatin [cis-diamminedichloroplatinum(II)]. This drug is administered i.v. so that before it reaches DNA in the nucleus of tumor cells it may interact with various compds. including sulfur-containing mols. such as L-methionine or the compds. containing these residues. L-Methionine increases the rate of reaction of cisplatin with monomeric GMP, and it was suggested on the basis of these results previously obtained by other authors that methionine residues could mediate the transfer of platinum onto DNA. We studied in the present work the reactions of the 1:1 complex formed between cisplatin and L-methionine or N-acetyl-L-methionine with

synthetic, single- and double-stranded oligodeoxyribonucleotides and natural, high mol. mass DNA by using high-pressure liquid chromatog. and flameless atomic absorption spectrophotometry. The results demonstrate that both L-methionine and N-acetyl-L-methionine decrease the rate of reaction of cisplatin with base residues in natural, high mol. mass DNA. Thus, the possibility that cisplatin bound to methionine residues serves as a drug reservoir available for platination of DNA in the nucleus of tumor cells appears unlikely.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:595178 CAPLUS

DOCUMENT NUMBER: 131:243258

TITLE: Preparation of thieno[2,3-c]pyrans and thieno[2,3-c]pyridines as modulators of protein tyrosine phosphatases (PTPases)

INVENTOR(S): Moller, Niels Peter Hundahl; Andersen, Henrik Sune; Iversen, Lars Fogh; Olsen, Ole Hvilsted; Branner, Sven; Holsworth, Daniel Dale; Bakir, Farid; Judge, Luke Milburn; Axe, Frank Urban; Jones, Todd Kevin; Ripka, Wiliam Charles; Ge, Yu; Uyeda, Roy Teruyuki

PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.; Ontogen Corporation

SOURCE: PCT Int. Appl., 157 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

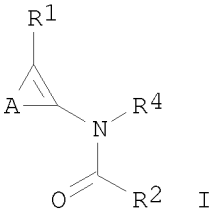
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9946267	A1	19990916	WO 1999-DK121	19990311
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2323493	A1	19990916	CA 1999-2323493	19990311
AU 9927135	A	19990927	AU 1999-27135	19990311
BR 9908726	A	20001121	BR 1999-8726	19990311
EP 1080095	A1	20010307	EP 1999-907332	19990311
EP 1080095	B1	20051102		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, LT, FI, RO				
US 6262044	B1	20010717	US 1999-268490	19990311
JP 2002506072	T	20020226	JP 2000-535645	19990311
HU 2001004984	A2	20020429	HU 2001-4984	19990311
HU 2001004984	A3	20030728		
AT 308546	T	20051115	AT 1999-907332	19990311
ZA 9902036	A	19991001	ZA 1999-2036	19990312
NO 2000004527	A	20001107	NO 2000-4527	20000911
MX 2000PA08927	A	20010328	MX 2000-PA8927	20000912
IN 2000CN00375	A	20050304	IN 2000-CN375	20000912
US 6410586	B1	20020625	US 2001-810266	20010316
US 2003069267	A1	20030410	US 2002-158464	20020528
US 6951878	B2	20051004		

PRIORITY APPLN. INFO.: DK 1998-344 A 19980312
DK 1998-480 A 19980403

DK 1998-938	A	19980715
DK 1998-1385	A	19981028
DK 1998-1612	A	19981207
US 1998-82915P	P	19980424
US 1998-93525P	P	19980721
US 1998-108747P	P	19981117
US 1999-268490	A3	19990311
WO 1999-DK121	W	19990311
US 2001-810266	A3	20010316

OTHER SOURCE(S): MARPAT 131:243258
GI



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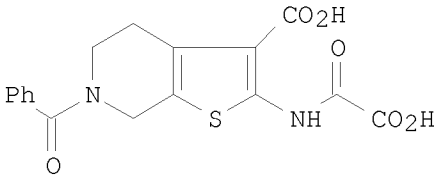

II

AB Thieno[2,3-c]pyrans and thieno[2,3-c]pyridines (I) [A = atoms to complete various 5/5 and 5/6 bicyclic heterocycles, e.g., thienopridines, thieno(thio)pyrans, benzothiophenes, etc.; R1 and R2 = independently acyl, OH or derivs., CF3, NO2, cyano, SO3H, (un)substituted NH2 or PO3H2, or various 5-membered heterocycles; R4 = H, OH, alkyl, (un)substituted aryl or aralkyl, (un)substituted NH2, alkoxy] were prepared as inhibitors of Protein Tyrosine Phosphatases (PTPases) such as PTP1B, CD45, SHP-1, SHP-2, PTPα, LAR, and HePTP. The compds. are useful in the treatment of type I diabetes, type II diabetes, impaired glucose tolerance, insulin resistance, obesity, immune dysfunctions including autoimmunity diseases with dysfunctions of the coagulation system, allergic diseases including asthma, osteoporosis, proliferative disorders including cancer and psoriasis, diseases with decreased or increased synthesis or effects of growth hormone, diseases with decreased or increased synthesis of hormones or cytokines that regulate the release of/or response to growth hormone, diseases of the brain including Alzheimer's disease and schizophrenia, and infectious diseases. For instance, 2-amino-6-benzoyl-4,5,6,7-tetrahydrothieno[2,3-c]pyridine-3-carboxylic acid Et ester was amidated with Et oxalyl chloride in THF (84%), followed by hydrolysis of the ester function with NaOH in aqueous solution to give the title compound(II) as the mono-Na salt (III) in 79% yield. In an in vitro test against PTP1B expressed in E. coli and purified by known methods, III had a Ki of 51 μM.
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:595127 CAPLUS
DOCUMENT NUMBER: 131:228643
TITLE: Preparation of oxalylaminothiophene derivatives as modulators of protein tyrosine phosphatases (PTPases)
INVENTOR(S): Richter, Lutz Stefan; Andersen, Henrik Sune; Vagner, Josef; Jeppesen, Claus Bekker; Moller, Niels Peter Hundahl; Branner, Sven; Jeppesen, Lone; Olsen, Ole Hvilsted; Iversen, Lars Fogh; Holsworth, Daniel Dale; Axe, Frank Urban; Ge, Yu; Jones, Todd Kevin; Ripka, Wiliam Charles; Uyeda, Roy Teruyuki; Su, Jing; Bakir, Farid; Judge, Luke Milburn

PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.; Ontogen Corporation; Richter, Birgith

SOURCE: PCT Int. Appl., 230 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9946237	A1	19990916	WO 1999-DK126	19990312
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6225329	B1	20010501	US 1999-265069	19990309
US 2002019412	A1	20020214	US 1999-265316	19990309
AU 9927139	A	19990927	AU 1999-27139	19990311
US 6262044	B1	20010717	US 1999-268490	19990311
CA 2323472	A1	19990916	CA 1999-2323472	19990312
ZA 9902029	A	19990927	ZA 1999-2029	19990312
ZA 9902032	A	19990927	ZA 1999-2032	19990312
ZA 9902038	A	19990927	ZA 1999-2038	19990312
ZA 9902036	A	19991001	ZA 1999-2036	19990312
BR 9908723	A	20001121	BR 1999-8723	19990312
EP 1080068	A1	20010307	EP 1999-907336	19990312
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, LT, FI, RO				
HU 2001002612	A2	20011128	HU 2001-2612	19990312
JP 2004500308	T	20040108	JP 2000-535620	19990312
NO 2000004526	A	20001108	NO 2000-4526	20000911
MX 2000PA08921	A	20020409	MX 2000-PA8921	20000912
US 6410586	B1	20020625	US 2001-810266	20010316
US 2003069267	A1	20030410	US 2002-158464	20020528
US 6951878	B2	20051004		

PRIORITY APPLN. INFO.:		
DK 1998-350	A	19980312
DK 1998-345	A	19980312
DK 1998-343	A	19980312
DK 1998-342	A	19980312
DK 1998-344	A	19980312
DK 1998-347	A	19980312
DK 1998-346	A	19980312
DK 1998-348	A	19980312
DK 1998-479	A	19980403
DK 1998-472	A	19980403
DK 1998-473	A	19980403
DK 1998-478	A	19980403
DK 1998-475	A	19980403
DK 1998-474	A	19980403
DK 1998-476	A	19980403
DK 1998-480	A	19980403
US 1998-82912P	P	19980424
DK 1998-667	A	19980515
US 1998-88115P	P	19980605
DK 1998-939	A	19980715
DK 1998-940		19980715
DK 1998-938		19980715

DK 1998-1385		19981028
DK 1998-1561		19981126
DK 1998-1612		19981207
US 1998-82365P	P	19980420
US 1998-82371P	P	19980420
US 1998-82373P	P	19980420
US 1998-82913P	P	19980424
US 1998-82914P	P	19980424
US 1998-82915P	P	19980424
US 1998-93525P	P	19980721
US 1998-93638P	P	19980721
US 1998-108747P	P	19981117
US 1999-268490	A3	19990311
WO 1999-DK126	W	19990312
US 2001-810266	A3	20010316

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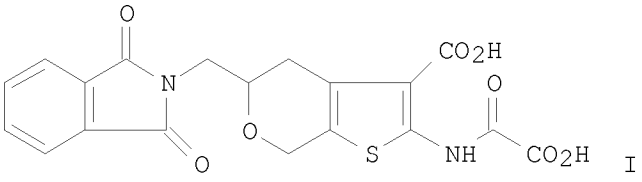


I

AB Oxalylaminoheterocycles (e.g., oxalylaminothiophene and oxalylaminothienopyran derivs., etc.) were prepared as inhibitors of Protein Tyrosine Phosphatases (PTPases), such as PTP1B, TC-PTP, CD45, SHP-1, SHP-2, PTPα, PTPε, PTPμ, PTPδ, PTPσ, PTPζ, PTPβ, PTPD1, PTPD2, PTPH1, PTP-MEG1, PTP-LAR, and HePTP. These compds. are indicated in the management or treatment of a broad range of diseases such as autoimmune diseases, acute and chronic inflammation, osteoporosis, various forms of cancer and malignant diseases, and type I diabetes and type II diabetes. For instance, 2-amino-5-hydroxymethyl-4,7-dihydro-5H-thieno[2,3-c]pyran-3-carboxylic acid tert-Bu ester (preparation given) was reacted with phthalimide in THF, PPh3, and DIAD to form the 5-phthalimidomethyl derivative (47%). The amine was amidated with imidazol-1-yloxoacetic acid tert-Bu ester in CH2Cl2 and TEA (99%), followed by hydrolysis of the ester function with TFA in CH2Cl2, to give 5-(1,3-dioxo-1,3-dihydroisoindol-2-ylmethyl)-2-(oxalylamino)-4,7-dihydro-5H-thieno[2,3-c]pyran-3-carboxylic acid (I) in 57% yield. In an in vitro test against PTP1B expressed in E. coli and purified by known methods, Ki values at various inhibitor concns. were determined An anal. of selectivity of two PTPase inhibitors against PTP1B, PTP-LAR, PTPε, CD45, and PTPβ showed that one compound of the invention is a non-selective inhibitor, whereas another behaves like a selective inhibitor.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:543993 CAPLUS

DOCUMENT NUMBER: 129:259749

TITLE: Growth inhibition of subcutaneously transplanted hepatomas without cachexia by alteration of the dietary arginine-methionine balance

AUTHOR(S): Millis, Richard M.; Diya, Cornelius A.; Reynolds, Michael E.; Dehkordi, Ozra; Bond, Vernon, Jr.

CORPORATE SOURCE: Dep. Physiology & Biophysics & Dep. Human Nutrition, Howard Univ., Washington, DC, 20059, USA

SOURCE: Nutrition and Cancer (1998), 31(1), 49-55
CODEN: NUCADQ; ISSN: 0163-5581
PUBLISHER: Lawrence Erlbaum Associates, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Alteration of the dietary arginine-methionine balance with synthetic L-amino acids inhibits the growth of s.c. transplanted Morris hepatoma at the expense of maintaining body weight in rats. L-Methionine is susceptible to biochem. degradation which may contribute to a deficiency state. The growth of s.c. hepatoma transplants and body growth maintenance were studied in rats fed diets containing L-methionine in the form of degradation-resistant N-acetyl-L-methionine (NALM) for 28 days. Tumor -free and tumor-bearing rats fed a control diet with amino acids replacing protein had body weight gains of 31.3±1.0 and 19.1±0.5 g (12 and 7%), resp. Rats fed 6 exptl. diets with varying L-arginine-NALM balances had body weight gains ranging from 18.4±0.3 to 26.7±0.9 g (7-10%). Tumor weight in control rats was 10.65±0.24% of body weight Diets supplemented with L-arginine in combination with normal and deficient amts. of NALM decreased the tumor wts. by 35 and 38%, resp. Thus, dietary replacement of L-methionine with NALM and supplementation with L-arginine inhibits the growth of s.c. transplanted Morris hepatoma in the absence of cachexia.

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:694251 CAPLUS
DOCUMENT NUMBER: 125:326402
TITLE: An immunoreactive conjugate, method for its preparation, antibodies to the conjugate and a pharmaceutical composition and diagnostic device containing them
INVENTOR(S): Maes, Roland
PATENT ASSIGNEE(S): Anda Biologicals S.A., Fr.
SOURCE: Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 736770	A2	19961009	EP 1996-870042	19960401
EP 736770	A3	19970502		
R: BE, DE, FR, GB, IT				
BE 1009230	A6	19970107	BE 1995-316	19950405
BE 1009917	A6	19971104	BE 1996-113	19960208
PRIORITY APPLN. INFO.:			BE 1995-316 A	19950405
			BE 1996-113 A	19960208

AB An immunoreactive conjugate is disclosed which contains 1 or more haptens consisting of a sulfhydryl group and one of the following: amino acids, carbohydrates, amino carbohydrates, phosphatidylinositol, sphingosine, and their nitrosyl, acyl, or acetyl derivs., the haptens being coupled to a protein with a mol. weight >8000 Kd and/or a solid support by a coupling agent capable of binding to the sulfhydryl group of the hapten. Thus, NO-cysteine and NO-N-acetyl-L-cysteine conjugates with albumin were prepared, and birds and mammals were vaccinated. IgG and IgM class antibodies specific for N-acetyl-L-cysteine were detected in the subjects. Addnl. analyses demonstrated that many HIV-pos. patients have IgG specific for acetyl-cysteine. Pharmaceutical compns. using these immunoreactive conjugates can be used in the prevention and/or treatment of autoimmunity,

AIDS, cancer, tuberculosis and a variety of other diseases.

L7 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:476772 CAPLUS
DOCUMENT NUMBER: 125:115140
TITLE: Preparation of nitric oxide-releasing agents for reducing metastasis risk
INVENTOR(S): Korthuis, Ronald J.; Kong, Lipu; Keefer, Larry K.
PATENT ASSIGNEE(S): United States Dept. of Health and Human Services, USA
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9615781	A1	19960530	WO 1995-US15381	19951120
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5700830	A	19971223	US 1994-344341	19941122
AU 9642460	A	19960617	AU 1996-42460	19951120
AU 699387	B2	19981203		
EP 804177	A1	19971105	EP 1995-940844	19951120
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
JP 10509181	T	19980908	JP 1995-517097	19951120
CA 2205555	C	20010821	CA 1995-2205555	19951120
CA 2205555	A1	19960530		

PRIORITY APPLN. INFO.: US 1994-344341 A 19941122
WO 1995-US15381 W 19951120
OTHER SOURCE(S): MARPAT 125:115140
AB Title agents, comprising N2O2--containing biopolymers, e.g., RN(O):NOR1 [R = (in)organic moiety; R1 = R, a pharmaceutically acceptable metal center (sic), pharmaceutically acceptable cation] wherein said N2O2- group is bonded to said biopolymer through ≥1 of R or R1, were prepared Thus, ClCH2COCl was aminated and amidated by MeNH2 and the product maintained 48h at 25° with NaOMe/MeOH under 40psi NO to give NaON:N(O)NMeCH2CONHMe. Data for biol. activity of H2NCH2CH2N[N(O)NO-]CH2CH2NH3+ were given in graphic form.

L7 ANSWER 12 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:357099 CAPLUS
DOCUMENT NUMBER: 125:26237
TITLE: Antiviral drugs and immunomodulators containing chelate-forming agents
INVENTOR(S): Bacanu, Serban Al; Ionescu, Iulian; Sarzea, Sorin; Tomas, Stefan Teodor
PATENT ASSIGNEE(S): Medico Pharma Vertriebs Gmbh, Germany; Sicomed S.A.
SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 9606639	A2	19960307	WO 1995-EP3426	19950831
WO 9606639	A3	19960725		

W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, UA, UG, US, UZ, VN, BE, FR, GR, IE, IT, MC, NL, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG, SZ

RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

DE 4431175	A1	19960411	DE 1994-4431175	19940901
AU 9535194	A	19960322	AU 1995-35194	19950831
PRIORITY APPLN. INFO.:			DE 1994-4431175 A	19940901
			WO 1995-EP3426 W	19950831

AB Combinations of chelate-forming agents and essential amino acids or their derivs. which are optionally complexed with bivalent metal ions are useful as antiviral agents, immunomodulators for treatment of autoimmune diseases, anticancer agents, and drugs for treatment of neurodegenerative diseases. Thus, Rodilemid (CaNa2EDTA/cysteine/Ca gluconate combination) (625 μg/mL) strongly inhibited HIV-1 in cultured MT-4 cells without inhibiting cell growth.

L7 ANSWER 13 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:	1996:62493 CAPLUS
DOCUMENT NUMBER:	124:157165
TITLE:	Ring-Opened Adducts of the Anticancer Drug Carboplatin with Sulfur Amino Acids
AUTHOR(S):	Barnham, Kevin J.; Djuran, Milos I.; Murdoch, Piedad del Socorro; Ranford, John D.; Sadler, Peter J.
CORPORATE SOURCE:	Birkbeck College, University of London, London, WC1H 0PP, UK
SOURCE:	Inorganic Chemistry (1996), 35(4), 1065-72 CODEN: INOCAJ; ISSN: 0020-1669
PUBLISHER:	American Chemical Society
DOCUMENT TYPE:	Journal
LANGUAGE:	English

AB Reactions of the anticancer drug carboplatin (Paraplatin) with a variety of sulfur-containing amino acids have been investigated by 1H and 15N NMR spectroscopy and by HPLC. Thiols react very slowly and sulfur-bridged species containing four-membered Pt2S2 rings are the predominant products. In contrast reactions with thioether ligands are much more rapid, and kinetics for the initial stages of the reaction with L-methionine have been determined (k = 2.7 + 10-3 M-1 s-1). Surprisingly, very stable ring-opened species are formed such as cis-[Pt(CBDCA-O)(NH3)2(L-HMet-S)] which has a half-life for Met-S,N ring-closure of 28 h at 310 K. A study of the formation of the analogous product for N-acetyl-L-methionine and its subsequent ring closure is reported. Reactions such as these may play a role in the biol. activity of carboplatin.

L7 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:	1990:191544 CAPLUS
DOCUMENT NUMBER:	112:191544
TITLE:	Thiol and thioether suppression of cis-platinum-induced nephrotoxicity in rats bearing the Walker 256 carcinosarcoma
AUTHOR(S):	Jones, Mark M.; Basinger, Mark A.
CORPORATE SOURCE:	Cent. Mol. Toxicol., Vanderbilt Univ., Nashville, TN, 37235, USA
SOURCE:	Anticancer Research (1989), 9(6), 1937-41 CODEN: ANTRD4; ISSN: 0250-7005
DOCUMENT TYPE:	Journal

LANGUAGE: English
AB An examination of 18 thiols and thio ethers revealed that the simultaneous administration of several of these with cis-platinum (CDDP) at 7.5 mg/kg (25 μmol/kg) i.v., as a single injection to rats bearing the Walker 256 carcinosarcoma led to significant reduction in the nephrotoxicity typically found with cis-platinum, and no apparent interference in its anti-neoplastic action towards this tumor. The thiols and thiol ethers were administered at a 20-fold molar excess to the CDDP and were combined with the CDDP immediately prior to administration. The most effective compds. in suppressing nephrotoxicity were D-, and L-methionine, Me and Et L-methioninate, and N-acetyl-DL-methionine.

L7 ANSWER 15 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1989:406348 CAPLUS
DOCUMENT NUMBER: 111:6348
TITLE: The effects of dietary alterations of L-arginine, L-methionine, and N-acetyl-L-methionine on the growth of Morris hepatoma #3924A and tumor polyamine levels
AUTHOR(S): Diya, Cornelius Adeniyi
CORPORATE SOURCE: Howard Univ., Washington, DC, USA
SOURCE: (1987) 240 pp. Avail.: Univ. Microfilms Int., Order No. DA8809013
From: Diss. Abstr. Int. B 1989, 49(7), 2573
DOCUMENT TYPE: Dissertation
LANGUAGE: English
AB Unavailable

L7 ANSWER 16 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1988:542107 CAPLUS
DOCUMENT NUMBER: 109:142107
TITLE: Nitrogen-14 NMR studies of amine release from platinum anticancer drugs: models and human blood plasma
AUTHOR(S): Norman, Richard E.; Sadler, Peter J.
CORPORATE SOURCE: Dep. Chem., Birkbeck Coll., London, WC1E 6BT, UK
SOURCE: Inorganic Chemistry (1988), 27(20), 3583-7
CODEN: INOCAJ; ISSN: 0020-1669
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The feasibility of using 14N{1H} NMR spectroscopy to follow reactions of Pt(II) antitumor drugs under biol. relevant conditions has been investigated. Amine release from cis-PtCl2(NH3)2 upon reaction with both L-methionine and N-acetyl-L-methionine and from PtCl2(1,2-diaminoethane) on reaction with L-methionine in aqueous solution can be readily detected. Upon incubation (37° for 24 h) of cis-PtCl2(NH3)2 with human blood plasma supplemented with L-methionine, at least one NH3 ligand appears to be lost. Ammonia release is also detected upon addition of excess sodium diethyldithiocarbamate (an agent used clin. to reverse cisplatin toxicity) to plasma incubated with cis-PtCl2(NH3)2 (37° for 2 h). Other 14N peaks assigned in plasma spectra include those for amides, phosphatidylcholines, and N2. Thus, 14N NMR spectroscopy provides a useful probe for studying these drugs at millimolar concns. under conditions that approach physiol. relevance.

L7 ANSWER 17 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1986:424506 CAPLUS
DOCUMENT NUMBER: 105:24506
ORIGINAL REFERENCE NO.: 105:4129a,4132a
TITLE: Adriamycin analogues. Preparation and biological evaluation of some N-(trifluoroacetyl)-14-O-[N-acetylamino)acyl]adriamycin derivatives

AUTHOR(S): Israel, Mervyn; Taube, David; Seshadri, Ramakrishnan; Idriss, John M.
CORPORATE SOURCE: Coll. Med., Univ. Tennessee, Memphis, TN, 38163, USA
SOURCE: Journal of Medicinal Chemistry (1986), 29(7), 1273-6
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 105:24506
GI

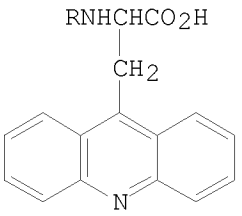
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A series of N-(trifluoroacetyl)adriamycin derivs. I (R = H, Me, CH2Ph, CH2CH2SMe, CHMe2, CH2CHMe2) with N-acylamino acid esters at the 14-carbinol postion were prepared I were made by reaction of 14-iododaunorubicin II with NaO2CCH(NHAc)R in DMF-ethylene glycol solvent. Products were evaluated for in vitro growth inhibitory activity and, to a limited extent, in vivo antitumor activity in the murine P388 leukemia system. ID50 values for I vs. cultured CCRF-CEM cells were generally in the same range as those for DNA nonbinding adriamycin analogs (I (R = CH2Ph) ID50 0.09). Studies on the rate of esterase-mediated deacylation of the products, in a defined system containing fractionated mouse serum as the source of enzyme, showed no relationship between the in vitro and in vivo activities of these compds. and the relative ease at which the side-chain ester substituents were hydrolyzed.

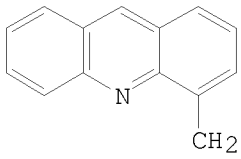
L7 ANSWER 18 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1979:570855 CAPLUS
DOCUMENT NUMBER: 91:170855
ORIGINAL REFERENCE NO.: 91:27549a,27552a
TITLE: Pharmacokinetics of 99mTc-acetylmethionine in tumor-bearing animals
AUTHOR(S): Khachirov, D. G.; Petriev, V. M.; Savin, Yu. I.; Prikhod'ko, A. G.
CORPORATE SOURCE: Nauchno-Issled. Inst. Med. Radiol., Obninsk, USSR
SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1979), 13(8), 33-5
CODEN: KHFZAN; ISSN: 0023-1134
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Administration of 99mTc-labeled N-acetyl-DL-methionine (I) (100-50 μCi i.v.) to rats with exptl. induced muscle sarcomas resulted in the accumulation of 99mTc in different organs and tissues for 24 h. The highest accumulation occurred in the liver and kidneys. The 99mTc level in the neoplastic muscles was higher than in the healthy muscles; however, the difference was not statistically significant to justify the use of I for neoplasm scintigraphy. Similar results were obtained with Na99mTcO4, but the rate of accumulation of the label in the tissues was markedly lower than with I.

L7 ANSWER 19 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1977:423695 CAPLUS
DOCUMENT NUMBER: 87:23695
ORIGINAL REFERENCE NO.: 87:3773a,3776a
TITLE: Synthesis and study of β-acridyl-α-alanines and their derivatives
AUTHOR(S): Konyukhov, V. N.; Sakovich, G. S.; Aksenova, T. N.; Bandurina, T. A.; Radina, L. B.; Pushkareva, Z. V.; Lesnaya, N. A.; Barybin, A. S.
CORPORATE SOURCE: Ural. Politekh. Inst. im. Kirova, Sverdlovsk, USSR

SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1976), 10(7), 56-9
CODEN: KHFZAN; ISSN: 0023-1134
DOCUMENT TYPE: Journal
LANGUAGE: Russian
GI



I



IV

AB The acridinylalanine I (R = H) (II) was coupled to Ac-Glu-OH anhydride, Ac-Met-OH, and Ac-Phe by dicyclohexylcarbodiimide to give the appropriate I [R = N-acetyl-α-glutamyl, Ac-Met (III), Ac-Phe]. Substitution reaction of 4-(bromomethyl)acridine with AcNHCH(CO2Et)2 and subsequent hydrolysis-decarboxylation gave the acridinylalanine IV. II, the N-oxide of II, and III at a daily dose of 100 mg/kg inhibited the growth of lymphosarcoma 35%, 62%, and 13%, resp.

L7 ANSWER 20 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1974:499491 CAPLUS
DOCUMENT NUMBER: 81:99491
ORIGINAL REFERENCE NO.: 81:15713a,15716a
TITLE: Inhibition of carcinoggenic and toxic effects of polycyclic hydrocarbons by several sulfur-containing compounds
AUTHOR(S): Wattenberg, Lee W.
CORPORATE SOURCE: Med. Sch., Univ. Minnesota, Minneapolis, MN, USA
SOURCE: Journal of the National Cancer Institute (1940-1978) (1974), 52(5), 1583-7
CODEN: JNCIAM; ISSN: 0027-8874
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Disulfiram (I) [97-77-8] and benzyl thiocyanate [3012-37-1] (PhCH2SCN) (0.03 mmole/g) and dimethyldithiocarbamate [79-45-8] (0.06 mmole/g) added to the diet inhibited 7,12-dimethylbenz[a]anthracene (II) [57-97-6]-induced mammary tumor formation and adrenal necrosis in female rats. Single oral administration of I (100 mg) 24 hr prior to II administration also suppressed mammary tumor formation. In the mouse, I prevented the occurrence of tumors of the forestomach that resulted from benzo[a]pyrene [50-32-8] in the diet, but did not affect pulmonary adenoma formation in mice given this carcinogen by oral intubation. Cystine [56-89-3] and L-methionine [63-68-3] and its derivs. were inactive as inhibitors of rat mammary tumors and adrenal necrosis. I had no effect on pulmonary adenoma formation from administration of benzo[a]pyrene by oral intubation in female mice.

L7 ANSWER 21 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1970:527221 CAPLUS
DOCUMENT NUMBER: 73:127221
ORIGINAL REFERENCE NO.: 73:20717a,20720a
TITLE: Analogs of methionine as substrates and inhibitors of the methionine adenosyltransferase reaction. Deductions concerning the conformation of methionine
AUTHOR(S): Lombardini, J. B.; Coulter, A. W.; Talalay, Paul

CORPORATE SOURCE: Sch. of Med., Johns Hopkins Univ., Baltimore, MD, USA
SOURCE: Molecular Pharmacology (1970), 6(5), 481-99
CODEN: MOPMA3; ISSN: 0026-895X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Steric, electronic, and conformational requirements are described for analogs of L-methionine essential to their function as substrates or inhibitors of the methionine adenosyltransferase reaction (EC 2.4.1.13). With the aid of partially purified transferase prepns. from Escherichia coli, bakers' yeast, and rat liver, a systematic study of substrate analogs has been undertaken. Inhibitors of the enzyme fall into 3 categories: (a) straight C chain amino acids, such as L-2-amino-4-hexenoic acid (trans but not the cis isomer) and L-2-amino-4-hexynoic acid, which are the most potent inhibitors; (b) cyclic amino acids, among which 1-aminocyclopentanecarboxylic acid and 1 of the 4 isomers of 1-amino-3-methylcyclopentanecarboxylic acid (either the 1R, 3R or the 1S, 3R isomer) are the most powerful; and (c) O-acetyl-L-serine, O-carbamoyl-L-serine, and S-carbamoyl-L-cysteine. Since inhibitors belonging to groups a and b possess considerable conformational rigidity by virtue of the presence of unsatns. or cyclic structures, it has been possible to draw conclusions with respect to the conformation of L-methionine at the active site of the adenosyltransferase reaction. A number of the inhibitors of the methionine adenosyltransferase reaction, such as 1-aminocyclopentanecarboxylic acid and S-carbamoyl-L-cysteine, are known to be inhibitors of the growth of certain microorganisms and tumors. The possibility is suggested that these inhibitory activities may be mediated at least in part through the inhibition of the synthesis of S-adenosyl-L-methionine.

L7 ANSWER 22 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1961:44317 CAPLUS
DOCUMENT NUMBER: 55:44317
ORIGINAL REFERENCE NO.: 55:8609c-e
TITLE: Acylase activity in the liver of rats fed 4-dimethylaminoazobenzene
AUTHOR(S): Kishi, Sanji; Haruno, Katsuhiko; Asano, Bunichi
CORPORATE SOURCE: Showa Med. School, Tokyo
SOURCE: Gann (1960), 51, 235-41
CODEN: GANNA2; ISSN: 0016-450X
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Activity of acylase in the liver of rats fed 4-dimethylaminoazobenzene (DAB) was measured by using as substrates acetanilide (AA), diacetyl-L-tyrosine (DAT), and acetylmethionine (AM). Activity of acylase for AA in the slightly cirrhotic liver was higher than that in normal liver, and even a severe case showed nearly the normal value, whereas the activity in hepatoma was scarcely detected. When DAT was used for acylase test, pathol. changed livers, including hepatoma, showed higher activity than normal liver. Acylase activity on AM was slightly higher than normal in the pathol. but noncancerous livers. Hepatoma showed 60% of the normal value. The liver of DAB-treated rats in the 4th week of experiment showed higher activity than normal when tested with AA, DAT, or AM. With regenerating liver the activity diminished to about half that of the excised portion of the same liver.

L7 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1961:44316 CAPLUS
DOCUMENT NUMBER: 55:44316
ORIGINAL REFERENCE NO.: 55:8608i,8609a-c
TITLE: The effect of toxohormone on iron metabolism
AUTHOR(S): Ono, Tetsuo; Ohashi, Mochihiko; Yago, Nagasumi
CORPORATE SOURCE: Japanese Foundation Cancer Research, Tokyo

SOURCE: Gann (1960), 51, 213-21
CODEN: GANNA2; ISSN: 0016-450X
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB In these expts. there were used 4 kinds of toxohormone (I) prepns., which varied in the extraction procedures and activities, all obtained from rat fibrosarcoma. One of them, T-fraction, was Nakahara and Fukuoka's EtOH precipitate, the second one, a-fraction, was a fraction adsorbed on Ca phosphate gel from the H2O extract of tumor tissues, the third, PSa-fraction, was prepared in the same way as a-fraction by Ca phosphate gel adsorption but from the boiled supernatant of tumor homogenate after removing a-fraction, and the last one, a-CM-fraction, the most active in catalase-depressing action among these 4 prepns., was the fraction purified by carboxymethylcellulose column chromatography from a-fraction. All were shown to decrease plasma Fe level of rats. The order of magnitude of this activity was the same as that established for their liver catalase-depressing activity. By using Fe-labeled plasma, it appeared that the lowering of Fe mobilization from the tissue reserve may be the most probable mechanism for action of toxohormone in decreasing plasma Fe.

L7 ANSWER 24 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1961:14595 CAPLUS
DOCUMENT NUMBER: 55:14595
ORIGINAL REFERENCE NO.: 55:2900i,2901a
TITLE: Feeding of surface-active substances and effect on infections
AUTHOR(S): Borneff, J.
SOURCE: Archiv fuer Hygiene und Bakteriologie (1957), 141, 578-95
From: C.Z. 1958, 10135.
CODEN: AHBAAM; ISSN: 0003-9144
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Hostapon (I) and Pril (II), surface-active materials, were given to guinea pigs and mice. I was given in high dose, II in normal dose corresponding to a possible human dose. No toxic effects were found at a level of 325 mg./kg./day, and no effect was found on enteral bacterial flora. Harmful effects were found only with concurrent streptococcal infection and treatment with I or II.

L7 ANSWER 25 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1961:14594 CAPLUS
DOCUMENT NUMBER: 55:14594
ORIGINAL REFERENCE NO.: 55:2900h-i
TITLE: Antitumor effect of amino acid analogs
AUTHOR(S): Abe, Mihoko; Chibata, Ichiro; Hirokawa, Hideo; Kameda, Yukio; Mizuno, Denichi
SOURCE: Yakugaku Zasshi (1960), 80, 1309-11
CODEN: YKKZAJ; ISSN: 0031-6903
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Some methionine analogs which had a marked effect against the solid type Ehrlich ascites carcinoma in mice included L-RCH(NHCOCH2Cl)CO2H (R = MeSCH2CH2); RCH(NHCOCHCl2)CO2H; RCH(NHAc)CN; RCH(NHCOCH2Cl)CN; RCH(NHCOCH2NH2.HCl)CN; EtSCH2CH2CH(NH2.1/2H2SO4)CN; EtSCH2CH2CH(NHCOCH2Cl)CN.

L7 ANSWER 26 OF 26 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1958:67871 CAPLUS
DOCUMENT NUMBER: 52:67871

ORIGINAL REFERENCE NO.: 52:12216e-f
TITLE: Behavior of blood glutathione in gastric patients after insulin treatment
AUTHOR(S): Musebeck, Klaus
CORPORATE SOURCE: Med. Akad., Dresden, Germany
SOURCE: Arztl. Forsch. (1957), 11, 313-16
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Although insulin produced within 10 min. a transient increase in glutathione blood level (I) in healthy controls, 20 I.U. of insulin intravenously lowered I in patients with gastric or duodenal ulcer, or with cancer of the stomach. Resection gave no change in the I response to insulin, but after surgical removal of the ulcer, patients gave a normal response. Injection of thiomedon produced no effect in either controls or patients.

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LOGOFF? (Y)/N/HOLD:n

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L1 STRUCTURE UPLOADED
L2 2 S L1 FAM FUL

FILE 'CAPLUS' ENTERED AT 10:13:37 ON 04 MAR 2008
L3 5 S L2

FILE 'REGISTRY' ENTERED AT 10:14:40 ON 04 MAR 2008
L4 STRUCTURE UPLOADED
L5 67 S L4 FAM FUL

FILE 'CAPLUS' ENTERED AT 10:15:20 ON 04 MAR 2008
L6 764 S L5
L7 26 S L6 AND (CANCER OR TUMOR OR NEOPLASM)

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                  substances identified in English-, French-, German-,
                  and Japanese-language basic patents from 2004-present
 NEWS  3  NOV 26  MARPAT enhanced with FSORT command
 NEWS  4  NOV 26  CHEMSAFE now available on STN Easy
 NEWS  5  NOV 26  Two new SET commands increase convenience of STN
                  searching
 NEWS  6  DEC 01  ChemPort single article sales feature unavailable
 NEWS  7  DEC 12  GBFULL now offers single source for full-text
                  coverage of complete UK patent families
 NEWS  8  DEC 17  Fifty-one pharmaceutical ingredients added to PS
 NEWS  9  JAN 06  The retention policy for unread STNmail messages
                  will change in 2009 for STN-Columbus and STN-Tokyo
 NEWS 10  JAN 07  WPIDS, WPINDEX, and WPIX enhanced Japanese Patent
                  Classification Data
 NEWS 11  FEB 02  Simultaneous left and right truncation (SLART) added
                  for CERAB, COMPUAB, ELCOM, and SOLIDSTATE
 NEWS 12  FEB 02  GENBANK enhanced with SET PLURALS and SET SPELLING
 NEWS 13  FEB 06  Patent sequence location (PSL) data added to USGENE
 NEWS 14  FEB 10  COMPENDEX reloaded and enhanced
 NEWS 15  FEB 11  WTEXTILES reloaded and enhanced

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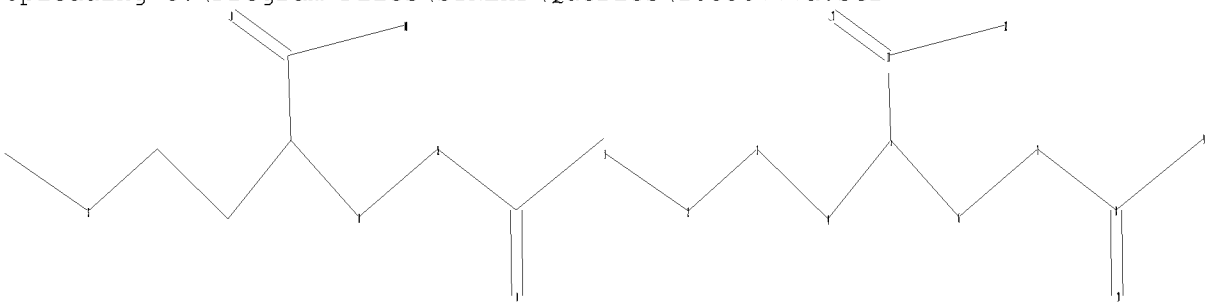

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chain bonds :
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exact/norm bonds :
1-2 2-3 5-6 6-7 7-8 8-10
exact bonds :
3-4 4-5 5-11 8-9
normalized bonds :
11-12 11-13

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS 13:CLASS

L1   STRUCTURE UPLOADED

=> s l1 fam ful

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FULL SEARCH INITIATED 14:45:19 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -        1 TO ITERATE

100.0% PROCESSED        1 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

L2            0 SEA FAM FUL L1

=> s l1
SAMPLE SEARCH INITIATED 14:45:26 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -        0 TO ITERATE

100.0% PROCESSED        0 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:            0 TO        0
PROJECTED ANSWERS:               0 TO        0

L3            0 SEA SSS SAM L1

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"HELP COMMANDS" at an arrow prompt (=>).

=> s l1 sss ful
FULL SEARCH INITIATED 14:45:52 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -       10 TO ITERATE

100.0% PROCESSED       10 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

L4            0 SEA SSS FUL L1

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=> file registry
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                                                         ENTRY    SESSION
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http://www.cas.org/support/stngen/stndoc/properties.html

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E1            1     ACETYLSELENOL/BI
E2            1     ACETYLSELENOLCHOLINE/BI
E3            0 --> ACETYLSELENOMETHIONINE/BI
E4            1     ACETYLSELENON/BI
E5            1     ACETYLSELENONIUM/BI
E6           13     ACETYLSELENOPHENE/BI
E7            2     ACETYLSELENOSEMI/BI
E8            2     ACETYLSELENOSEMICARBAZ/BI
E9            2     ACETYLSELENOSEMICARBAZIDE/BI
E10           1     ACETYLSELENOUREA/BI
E11           1     ACETYLSELIN/BI
E12           8     ACETYLSEMI/BI

=> e selenomethionine
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E2            2     SELENOMETHENO/BI
E3           18 --> SELENOMETHIONINE/BI
E4            1     SELENOMETHIONINE,108/BI
E5            1     SELENOMETHIONINE,115/BI
E6            1     SELENOMETHIONINE,69/BI
E7           97     SELENOMETHYL/BI
E8            7     SELENOMETHYLBENZO/BI
E9            7     SELENOMETHYLBENZOTRIAZOLE/BI
E10          46     SELENOMETHYLENE/BI
E11           1     SELENOMETHYLENEDI/BI
E12           1     SELENOMETHYLENEDIPHOSPHON/BI

=> s e3
L5           18 SELENOMETHIONINE/BI

=> d l5 1-18

L5   ANSWER 1 OF 18  REGISTRY  COPYRIGHT 2009 ACS on STN
RN   919111-31-2  REGISTRY
ED   Entered STN:  02 Feb 2007
CN   Chromium, tris[2-(amino-κN)-4-(methylseleno)butanoato-κO]-
     (CA INDEX NAME)
OTHER NAMES:
CN   DL-Selenomethionine chromium
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CI   CCS
SR   CA
LC   STN Files:   CA, CAPLUS, CASREACT
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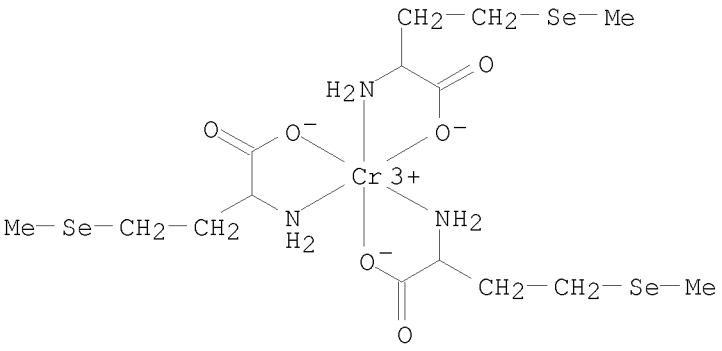


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 2 OF 18 REGISTRY COPYRIGHT 2009 ACS on STN
RN 620990-40-1 REGISTRY
ED Entered STN: 27 Nov 2003
CN Cytidylyltransferase, 2-keto-3-deoxyoctonate [1-selenomethionine] (Haemophilus influenzae strain ATCC51907D) fusion protein with hexahistidine (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 170: PN: WO03089570 FIGURE: 8 claimed sequence
FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 3 OF 18 REGISTRY COPYRIGHT 2009 ACS on STN
RN 620990-39-8 REGISTRY
ED Entered STN: 27 Nov 2003
CN Cytidylyltransferase, 2-keto-3-deoxyoctonate [1-selenomethionine] (Escherichia coli strain ATCC10798D) fusion protein with hexahistidine (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 168: PN: WO03089570 FIGURE: 7 claimed protein
FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 4 OF 18 REGISTRY COPYRIGHT 2009 ACS on STN
RN 620990-38-7 REGISTRY
ED Entered STN: 27 Nov 2003
CN Aldolase, phospho-2-keto-3-deoxyoctonate [1-selenomethionine] (Haemophilus influenzae strain ATCC51907D) fusion protein with hexahistidine (9CI) (CA INDEX NAME)

OTHER NAMES:
CN 33: PN: WO03089570 FIGURE: 2 claimed sequence
FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 5 OF 18 REGISTRY COPYRIGHT 2009 ACS on STN
RN 479648-38-9 REGISTRY
ED Entered STN: 21 Jan 2003
CN Synthase, 2-C-methyl-D-erythritol 2,4-cyclodiphosphate
    [1-selenomethionine,69-selenomethionine,108-selenomethionine,115-
    selenomethionine](Haemophilus influenzae) fusion protein with peptide
    (synthetic histidine tag) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 11: PN: WO02102991 FIGURE: 2 claimed sequence
FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 6 OF 18 REGISTRY COPYRIGHT 2009 ACS on STN
RN 391281-86-0 REGISTRY
ED Entered STN: 11 Feb 2002
CN Cytochrome b 562 [7-selenomethionine] (Escherichia coli) (9CI)
    (CA INDEX NAME)
FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS

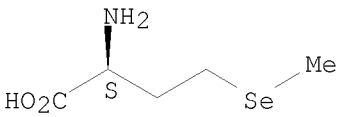
RELATED SEQUENCES AVAILABLE WITH SEQLINK

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 7 OF 18 REGISTRY COPYRIGHT 2009 ACS on STN
RN 61125-47-1 REGISTRY
ED Entered STN: 16 Nov 1984
CN Butanoic acid, 2-amino-4-(methylseleno)-, hydrochloride, (2S)- (9CI) (CA
    INDEX NAME)
OTHER CA INDEX NAMES:
CN Butanoic acid, 2-amino-4-(methylseleno)-, hydrochloride, (S)-
OTHER NAMES:
CN L-Selenomethionine hydrochloride
FS STEREOSEARCH
MF C5 H11 N O2 Se . Cl H

LC STN Files: CA, CAPLUS
CRN (3211-76-5)

Absolute stereochemistry.

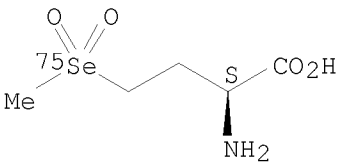


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 8 OF 18 REGISTRY COPYRIGHT 2009 ACS on STN
RN 60343-90-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN Butanoic acid, 2-amino-4-(methylselenonyl-75Se)-, (S)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN L-Selenomethionine-75Se selenone
FS STEREOSEARCH
MF C5 H11 N O4 Se
LC STN Files: CA, CAPLUS

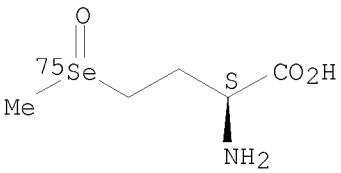
Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 9 OF 18 REGISTRY COPYRIGHT 2009 ACS on STN
RN 60343-89-7 REGISTRY
ED Entered STN: 16 Nov 1984
CN Butanoic acid, 2-amino-4-(methylseleninyl-75Se)-, (S)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN L-Selenomethionine-75Se oxide
FS STEREOSEARCH
MF C5 H11 N O3 Se
LC STN Files: CA, CAPLUS

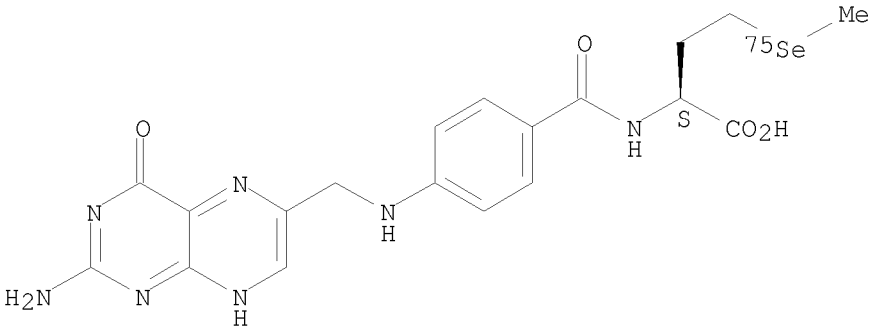
Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 10 OF 18 REGISTRY COPYRIGHT 2009 ACS on STN
RN 56927-14-1 REGISTRY
ED Entered STN: 16 Nov 1984
CN Butanoic acid, 2-[[4-[[(2-amino-1,4-dihydro-4-oxo-6-pteridinyl)methyl]amino]benzoyl]amino]-4-(methylseleno-75Se)-, (S)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN N-Pteroyl-L-selenomethionine labeled with selenium-75
FS STEREOSEARCH
MF C19 H21 N7 O4 Se
LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL

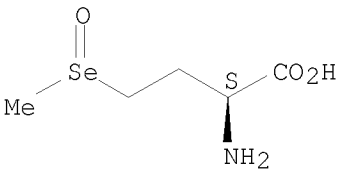
Absolute stereochemistry.



3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 11 OF 18 REGISTRY COPYRIGHT 2009 ACS on STN
RN 19192-78-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN Butanoic acid, 2-amino-4-(methylseleninyl)-, (2S)- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Butanoic acid, 2-amino-4-(methylseleninyl)-, (S)-
CN Butyric acid, 2-amino-4-(methylseleninyl)-, L- (8CI)
OTHER NAMES:
CN Selenomethionine selenium oxide
FS STEREOSEARCH
MF C5 H11 N O3 Se
LC STN Files: CA, CAPLUS, CASREACT, TOXCENTER

Absolute stereochemistry.

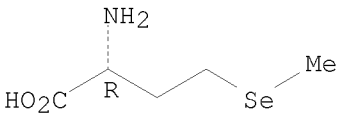


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

15 REFERENCES IN FILE CA (1907 TO DATE)
15 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 12 OF 18 REGISTRY COPYRIGHT 2009 ACS on STN
RN 13091-98-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN Butanoic acid, 2-amino-4-(methylseleno)-, (2R)- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Butanoic acid, 2-amino-4-(methylseleno)-, (R)-
CN Butyric acid, 2-amino-4-(methylselenyl)-, D- (8CI)
OTHER NAMES:
CN D-Selenomethionine
FS STEREOSEARCH
MF C5 H11 N O2 Se
LC STN Files: BEILSTEIN*, BIOSIS, CA, CAPLUS, CASREACT, CHEMINFORMRX, TOXCENTER
(*File contains numerically searchable property data)

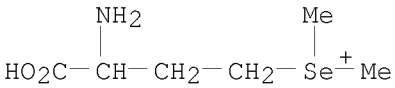
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

31 REFERENCES IN FILE CA (1907 TO DATE)
31 REFERENCES IN FILE CAPLUS (1907 TO DATE)

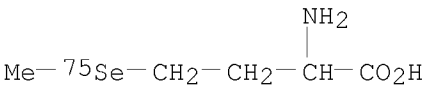
L5 ANSWER 13 OF 18 REGISTRY COPYRIGHT 2009 ACS on STN
RN 7728-97-4 REGISTRY
ED Entered STN: 16 Nov 1984
CN Selenonium, (3-amino-3-carboxypropyl)dimethyl- (CA INDEX NAME)
OTHER NAMES:
CN Methylselenomethionine
CN Se-Methylselenomethionine
MF C6 H14 N O2 Se
CI COM
LC STN Files: AGRICOLA, ANABSTR, BIOSIS, CA, CAPLUS, TOXCENTER



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

15 REFERENCES IN FILE CA (1907 TO DATE)
15 REFERENCES IN FILE CAPLUS (1907 TO DATE)

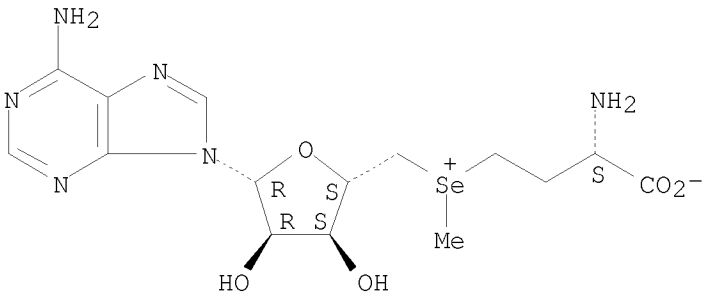
L5 ANSWER 14 OF 18 REGISTRY COPYRIGHT 2009 ACS on STN
RN 7246-06-2 REGISTRY
ED Entered STN: 16 Nov 1984
CN Butanoic acid, 2-amino-4-(methylseleno-75Se)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Butyric acid, 2-amino-4-(methylselenyl-75Se)- (7CI, 8CI)
OTHER NAMES:
CN DL-Selenomethionine-75Se
CN Selenomethionine labeled with selenium-75
CN Selenomethionine-75Se
DR 5696-20-8, 34428-70-1
MF C5 H11 N O2 Se
LC STN Files: AGRICOLA, BIOSIS, CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL



98 REFERENCES IN FILE CA (1907 TO DATE)
98 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 15 OF 18 REGISTRY COPYRIGHT 2009 ACS on STN
RN 5134-38-3 REGISTRY
ED Entered STN: 16 Nov 1984
CN Adenosine, 5'-[[(3S)-3-amino-3-carboxypropyl]methylselenonio]-5'-deoxy-, inner salt (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Selenomethionine, Se-adenosyl- (6CI, 7CI, 8CI)
OTHER NAMES:
CN Adenosylselenomethionine
FS STEREOSEARCH
MF C15 H22 N6 O5 Se
LC STN Files: ANABSTR, BIOSIS, CA, CAPLUS, CASREACT, MEDLINE, TOXCENTER

Absolute stereochemistry.



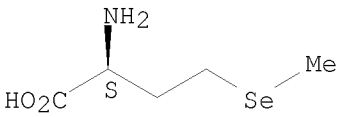
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

15 REFERENCES IN FILE CA (1907 TO DATE)
15 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 16 OF 18 REGISTRY COPYRIGHT 2009 ACS on STN

RN   3211-76-5 REGISTRY
ED   Entered STN: 16 Nov 1984
CN   Butanoic acid, 2-amino-4-(methylseleno)-, (2S)- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   Butanoic acid, 2-amino-4-(methylseleno)-, (S)-
CN   Butyric acid, 2-amino-4-(methylselenyl)-, L- (8CI)
OTHER NAMES:
CN   L-Selenomethionine
CN   Seleno-L-methionine
CN   Selenomethionine
FS   STEREOSEARCH
MF   C5 H11 N O2 Se
CI   COM
LC   STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOSIS,
       BIOTECHNO, CA, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN,
       CSCHEM, EMBASE, IPA, PHAR, PROMT, RTECS*, SPECINFO, TOXCENTER, USPAT2,
       USPATFULL
         (*File contains numerically searchable property data)

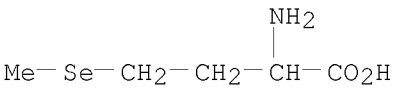
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

             875 REFERENCES IN FILE CA (1907 TO DATE)
              22 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
             880 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5   ANSWER 17 OF 18 REGISTRY COPYRIGHT 2009 ACS on STN
RN   1464-42-2 REGISTRY
ED   Entered STN: 16 Nov 1984
CN   Butanoic acid, 2-amino-4-(methylseleno)- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   Butyric acid, 2-amino-4-(methylselenyl)- (6CI, 8CI)
OTHER NAMES:
CN   (±)-Selenomethionine
CN   2-Amino-4-(methylseleno)butyric acid
CN   2-Amino-4-(methylselenyl)butyric acid
CN   dl-Selenomethionine
CN   DL-Selenomethionine
CN   Selenium methionine
CN   Seleno-DL-methionine
CN   Selenomethionine
DR   2578-28-1
MF   C5 H11 N O2 Se
CI   COM
LC   STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOSIS,
       BIOTECHNO, CA, CABA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX,
       CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DRUGU, EMBASE, HSDB*, IPA, MEDLINE,
       MRCK*, MSDS-OHS, PHAR, PROMT, RTECS*, SPECINFO, TOXCENTER, USAN, USPAT2,
       USPATFULL, VETU
         (*File contains numerically searchable property data)
     Other Sources: EINECS**
         (**Enter CHEMLIST File for up-to-date regulatory information)

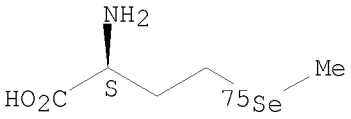


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1218 REFERENCES IN FILE CA (1907 TO DATE)
17 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1222 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 18 OF 18 REGISTRY COPYRIGHT 2009 ACS on STN
RN 1187-56-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN Butanoic acid, 2-amino-4-(methylseleno-75Se)-, (2S)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Butanoic acid, 2-amino-4-(methylseleno-75Se)-, (S)-
CN Butyric acid, 2-amino-4-(methylselenyl-75Se)-, L- (8CI)
OTHER NAMES:
CN L-Selenomethionine-75Se
CN L-[75Se]-Selenomethionine
CN Selenomethionine (75Se)
CN Sethotope
CN [75Se]-L-Selenomethionine
FS STEREOSEARCH
MF C5 H11 N O2 Se
CI COM
LC STN Files: AGRICOLA, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MRCK*, TOXCENTER, USAN, USPATFULL
(*File contains numerically searchable property data)
Other Sources: WHO

Absolute stereochemistry.



57 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
57 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> e acetylselenomethionine
E1 1 ACETYLSELENOL/BI
E2 1 ACETYLSELENOLCHOLINE/BI
E3 0 --> ACETYLSELENOMETHIONINE/BI
E4 1 ACETYLSELENON/BI
E5 1 ACETYLSELENONIUM/BI
E6 13 ACETYLSELENOPHENE/BI
E7 2 ACETYLSELENOSEMI/BI
E8 2 ACETYLSELENOSEMICARBAZ/BI
E9 2 ACETYLSELENOSEMICARBAZIDE/BI
E10 1 ACETYLSELENOUREA/BI
E11 1 ACETYLSELIN/BI
E12 8 ACETYLSEMI/BI

=> selenoacetylmethionine

```
SELENOACETYLMETHIONINE IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> e selenoacetylmethionine
E1            4     SELENOACETYL/BI
E2            3     SELENOACETYLENE/BI
E3            0 --> SELENOACETYLMETHIONINE/BI
E4            1     SELENOACROLEIN/BI
E5            1     SELENOADAMANTANE/BI
E6            1     SELENOADENOSIN/BI
E7            4     SELENOADENOSINE/BI
E8           10     SELENOADENYL/BI
E9           10     SELENOADENYLYL/BI
E10           1     SELENOAL/BI
E11           2     SELENOALDEHYD/BI
E12           2     SELENOALDEHYDATO/BI

=> logoff
ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:y
COST IN U.S. DOLLARS                              SINCE FILE      TOTAL
                                                      ENTRY    SESSION
FULL ESTIMATED COST                                   47.53     320.88

STN INTERNATIONAL LOGOFF AT 15:10:12 ON 11 FEB 2009



Connecting via Winsock to STN



Welcome to STN International!  Enter x:X

LOGINID:ssptacrs1614

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1          Web Page for STN Seminar Schedule - N. America
 NEWS  2  NOV 21  CAS patent coverage to include exemplified prophetic
                  substances identified in English-, French-, German-,
                  and Japanese-language basic patents from 2004-present
 NEWS  3  NOV 26  MARPAT enhanced with FSORT command
 NEWS  4  NOV 26  CHEMSAFE now available on STN Easy
 NEWS  5  NOV 26  Two new SET commands increase convenience of STN
                  searching
 NEWS  6  DEC 01  ChemPort single article sales feature unavailable
 NEWS  7  DEC 12  GBFULL now offers single source for full-text
                  coverage of complete UK patent families
 NEWS  8  DEC 17  Fifty-one pharmaceutical ingredients added to PS
 NEWS  9  JAN 06  The retention policy for unread STNmail messages
                  will change in 2009 for STN-Columbus and STN-Tokyo
 NEWS 10  JAN 07  WPIDS, WPINDEX, and WPIX enhanced Japanese Patent
                  Classification Data
 NEWS 11  FEB 02  Simultaneous left and right truncation (SLART) added
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                    for CERAB, COMPUAB, ELCOM, and SOLIDSTATE
 NEWS 12  FEB 02  GENBANK enhanced with SET PLURALS and SET SPELLING
 NEWS 13  FEB 06  Patent sequence location (PSL) data added to USGENE
 NEWS 14  FEB 10  COMPENDEX reloaded and enhanced
 NEWS 15  FEB 11  WTEXTILES reloaded and enhanced

 NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
              AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.

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  of commercial gateways or other similar uses is prohibited and may
  result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 15:14:04 ON 11 FEB 2009

=> file registry
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.22       0.22

FILE 'REGISTRY' ENTERED AT 15:14:12 ON 11 FEB 2009
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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STRUCTURE FILE UPDATES:   10 FEB 2009  HIGHEST RN 1104141-78-7
DICTIONARY FILE UPDATES:  10 FEB 2009  HIGHEST RN 1104141-78-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\STNEXP\Queries\10536777z.str
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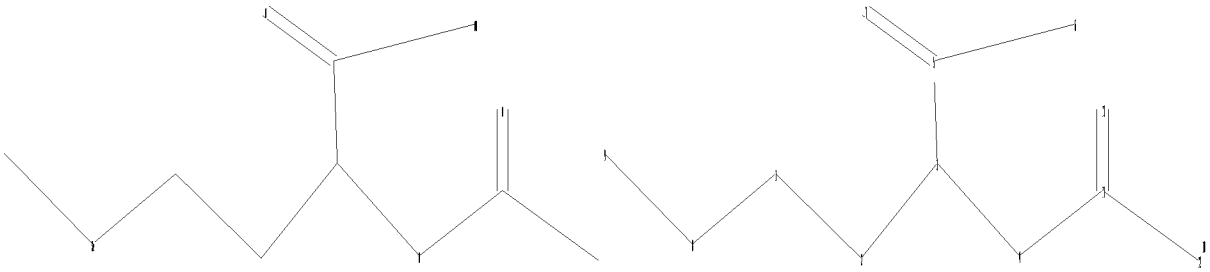
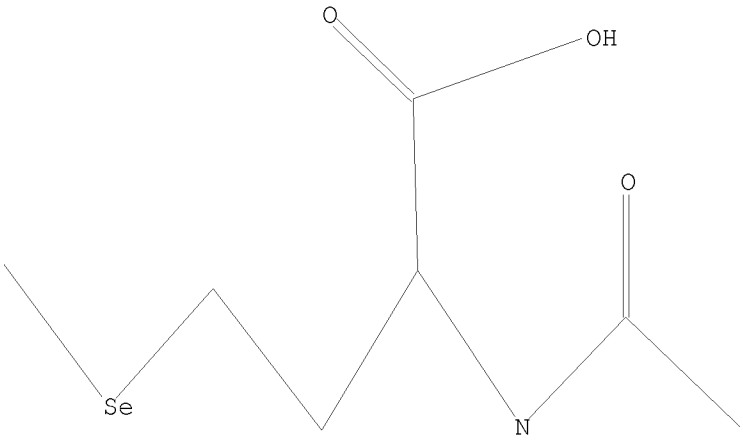


chain nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13
chain bonds :
1-2 1-8 2-3 3-4 3-5 4-11 5-6 5-7 8-9 10-10 10-10 11-12 11-13
exact/norm bonds :
1-8 3-4 4-11 8-9 11-13
exact bonds :
1-2 2-3 3-5 10-10 10-10 11-12
normalized bonds :
5-6 5-7

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS 13:CLASS

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 fam ful

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FULL SCREEN SEARCH COMPLETED -       22 TO ITERATE

100.0% PROCESSED       22 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

L2            0 SEA FAM FUL L1

=> s l1 fam ful
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FULL SCREEN SEARCH COMPLETED -       22 TO ITERATE

100.0% PROCESSED       22 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

L3            0 SEA FAM FUL L1

=> end
ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:y
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                     ENTRY    SESSION
FULL ESTIMATED COST                                 146.66     146.88

STN INTERNATIONAL LOGOFF AT 15:15:08 ON 11 FEB 2009



Connecting via Winsock to STN



Welcome to STN International!  Enter x:X

LOGINID:ssptacrs1614

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1          Web Page for STN Seminar Schedule - N. America
 NEWS  2  NOV 21  CAS patent coverage to include exemplified prophetic
                  substances identified in English-, French-, German-,
                  and Japanese-language basic patents from 2004-present
 NEWS  3  NOV 26  MARPAT enhanced with FSORT command
 NEWS  4  NOV 26  CHEMSAFE now available on STN Easy
 NEWS  5  NOV 26  Two new SET commands increase convenience of STN
                  searching
 NEWS  6  DEC 01  ChemPort single article sales feature unavailable
 NEWS  7  DEC 12  GBFULL now offers single source for full-text
                  coverage of complete UK patent families
 NEWS  8  DEC 17  Fifty-one pharmaceutical ingredients added to PS
 NEWS  9  JAN 06  The retention policy for unread STNmail messages
                  will change in 2009 for STN-Columbus and STN-Tokyo
 NEWS 10  JAN 07  WPIDS, WPINDEX, and WPIX enhanced Japanese Patent
                  Classification Data
 NEWS 11  FEB 02  Simultaneous left and right truncation (SLART) added
                  for CERAB, COMPUAB, ELCOM, and SOLIDSTATE
 NEWS 12  FEB 02  GENBANK enhanced with SET PLURALS and SET SPELLING
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 NEWS 13  FEB 06  Patent sequence location (PSL) data added to USGENE
 NEWS 14  FEB 10  COMPENDEX reloaded and enhanced
 NEWS 15  FEB 11  WTEXTILES reloaded and enhanced

 NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
              AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8

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* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 15:19:07 ON 11 FEB 2009

=> file registry
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.22       0.22

FILE 'REGISTRY' ENTERED AT 15:19:18 ON 11 FEB 2009
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STRUCTURE FILE UPDATES:   10 FEB 2009  HIGHEST RN 1104141-78-7
DICTIONARY FILE UPDATES:  10 FEB 2009  HIGHEST RN 1104141-78-7

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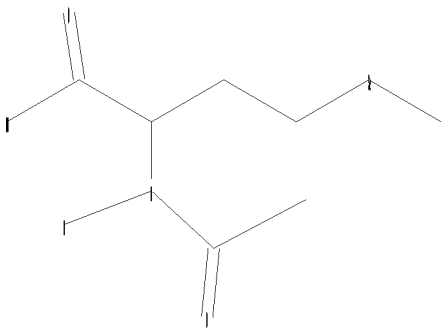

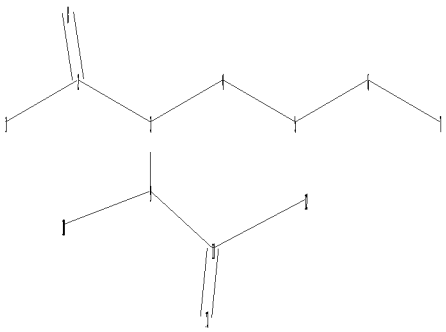

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chain bonds :
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exact/norm bonds :
3-9  5-6  6-7  9-11  11-13
exact bonds :
2-3  3-4  4-5  9-10  11-12
normalized bonds :
1-2  2-8


Match level :
1:CLASS  2:CLASS  3:CLASS  4:CLASS  5:CLASS  6:CLASS  7:CLASS  8:CLASS  9:CLASS
10:CLASS  11:CLASS  12:CLASS  13:CLASS



L1      STRUCTURE UPLOADED

=> s l1 sss ful
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100.0% PROCESSED      130 ITERATIONS                                24 ANSWERS
SEARCH TIME: 00.00.01

L2           24 SEA SSS FUL L1

=> s l1 fam ful
FULL SEARCH INITIATED 15:19:35 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -       22 TO ITERATE

100.0% PROCESSED       22 ITERATIONS                                 2 ANSWERS
SEARCH TIME: 00.00.01

L3            2 SEA FAM FUL L1

=> d l3 1-2

L3   ANSWER 1 OF 2  REGISTRY  COPYRIGHT 2009 ACS on STN
RN   210910-25-1  REGISTRY
ED   Entered STN:  06 Sep 1998
CN   Butanoic acid, 2-(acetylamino)-4-(methylseleno)-, (2S)-  (CA INDEX NAME)
FS   STEREOSEARCH
MF   C7 H13 N O3 Se
SR   CA
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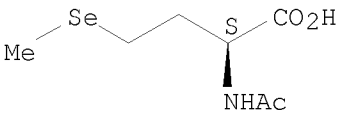
LC STN Files: CA, CAPLUS, CHEMCATS, TOXCENTER, USPAT2, USPATFULL

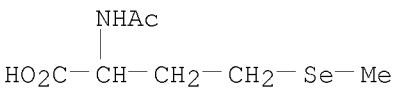
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2009 ACS on STN
RN 174463-50-4 REGISTRY
ED Entered STN: 22 Mar 1996
CN Butanoic acid, 2-(acetylamino)-4-(methylseleno)- (CA INDEX NAME)
MF C7 H13 N O3 Se
SR CA
LC STN Files: CA, CAPLUS, CASREACT, CHEMCATS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	262.83	263.05

FILE 'CAPLUS' ENTERED AT 15:20:02 ON 11 FEB 2009
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FILE COVERS 1907 - 11 Feb 2009 VOL 150 ISS 7
FILE LAST UPDATED: 10 Feb 2009 (20090210/ED)

Caplus now includes complete International Patent Classification (IPC)

reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> s l1
   REG1stRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

SAMPLE SEARCH INITIATED 15:20:11 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -   7 TO ITERATE

100.0% PROCESSED   7 ITERATIONS   2 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS: 7 TO   298
PROJECTED ANSWERS: 2 TO   124

L4   2 SEA SSS SAM L1

L5   3 L4

=> file caplus
COST IN U.S. DOLLARS   SINCE FILE   TOTAL
                                                   ENTRY   SESSION
FULL ESTIMATED COST   0.50   264.53

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FILE COVERS 1907 - 11 Feb 2009 VOL 150 ISS 7
FILE LAST UPDATED: 10 Feb 2009 (20090210/ED)

Caplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2008.

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This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> s l2
L6 26 L2

=> d l6 ibib abs 1-26

L6 ANSWER 1 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:330312 CAPLUS
DOCUMENT NUMBER: 148:444051
TITLE: On-Virus Construction of Polyvalent Glycan Ligands for Cell-Surface Receptors
AUTHOR(S): Kaltgrad, Eiton; O'Reilly, Mary K.; Liao, Liang; Han, Shoufa; Paulson, James C.; Finn, M. G.
CORPORATE SOURCE: Department of Chemistry and The Skaggs Institute for Chemical Biology and Departments of Chemical Physiology and Molecular Biology, The Scripps Research Institute, La Jolla, CA, 92037, USA
SOURCE: Journal of the American Chemical Society (2008), 130(14), 4578-4579
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 148:444051
AB Glycans arrayed on the exterior of virus particles were used as substrates for glycosyltransferase reactions to build di- and trisaccharides from the virus surface. The resulting particles exhibited tight and specific assocns. with cognate receptors on beads and cells, in one example defeating in cis cell-surface interactions in a manner characteristic of polyvalent binding. Combined with the ability of viruses to provide structurally well-defined attachment points, the methodol. provides a convenient and powerful way to prepare complex carbohydrate ligands for clustered receptors.
REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:280755 CAPLUS
DOCUMENT NUMBER: 148:419751
TITLE: Unnatural Amino Acid Incorporation into Virus-Like Particles
AUTHOR(S): Strable, Erica; Prasuhn, Duane E.; Udit, Andrew K.; Brown, Steven; Link, A. James; Ngo, John T.; Lander, Gabriel; Quispe, Joel; Potter, Clinton S.; Carragher, Bridget; Tirrell, David A.; Finn, M. G.
CORPORATE SOURCE: Department of Chemistry and The Skaggs Institute of Chemical Biology, and National Resource for Automated Molecular Microscopy and Department of Cell Biology, The Scripps Research Institute, La Jolla, CA, 92037, USA
SOURCE: Bioconjugate Chemistry (2008), 19(4), 866-875
CODEN: BCCHES; ISSN: 1043-1802
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 148:419751

AB Virus-like particles composed of hepatitis B virus (HBV) or bacteriophage Qβ capsid proteins have been labeled with azide- or alkyne-containing unnatural amino acids by expression in a methionine auxotrophic strain of E. coli. The substitution does not affect the ability of the particles to self-assemble into icosahedral structures indistinguishable from native forms. The azide and alkyne groups were addressed by Cu(I)-catalyzed [3 + 2] cycloaddn.: HBV particles were decomposed by the formation of more than 120 triazole linkages per capsid in a location-dependent manner, whereas Qβ suffered no such instability. The marriage of these well-known techniques of sense-codon reassignment and bioorthogonal chemical coupling provides the capability to construct polyvalent particles displaying a wide variety of functional groups with near-perfect control of spacing.
REFERENCE COUNT: 94 THERE ARE 94 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:121591 CAPLUS
DOCUMENT NUMBER: 148:215328
TITLE: Preparation of novel selenoamino acid-containing dipeptides with enhanced bioavailability in pharmaceutical and cosmetic applications
INVENTOR(S): Majeed, Muhammed; Nagabhushanam, Kalyanam; Ramanujam, Rajendran; Chandramouli, Renukeshwar H.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 26pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 20080026017	A1	20080131	US 2007-749184		20070516
PRIORITY APPLN. INFO.:			US 2006-767528P	P	20060518

OTHER SOURCE(S): CASREACT 148:215328
AB The invention relates to peptides in which L-selenomethionine or Se-methyl-L-selenocysteine is linked to L-glutamic acid or other amino acids. The peptides exhibit (i) enhanced water solubility, (ii) enhanced rate of dissoln. in water, (iii) enhanced bioavailability, (iv) excellent vascular endothelial growth factor (VEGF)-promoting activity, (v) excellent anti-5-α-reductase activity, (vi) and capability to prevent/reduce hair loss and promote hair growth. Cosmetic and pharmaceutical compns. comprising the isomeric peptides are also disclosed. Thus, γ-L-glutamyl-Se-methyl-L-selenocysteine was prepared by reaction of N-phthaloyl-L-glutamic anhydride (synthesis given) with Se-methyl-L-selenocysteine, followed by hydrazinolysis. VEGF-promoting and anti-5-α-reductase activities by dipeptides of the invention are tabulated.

L6 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:474644 CAPLUS
DOCUMENT NUMBER: 147:26400
TITLE: Standardless identification of selenocystathionine and its γ-glutamyl derivatives in monkeypot nuts by 3D liquid chromatography with ICP-MS detection followed by nanoHPLC-Q-TOF-MS/MS
AUTHOR(S): Dernovics, Mihaly; Garcia-Barrera, Tamara; Bierla, Katarzyna; Preud'homme, Hugues; Lobinski, Ryszard
CORPORATE SOURCE: Equipe de Chimie Analytique Bio-inorganique, CNRS UMR 5034, Pau, F-64053, Fr.
SOURCE: Analyst (Cambridge, United Kingdom) (2007), 132(5),

439-449
CODEN: ANALAO; ISSN: 0003-2654
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A three-step chromatog. procedure using orthogonal separation mechanisms (size-exclusion, cation-exchange and ion-pairing reversed phase) was developed to purify three low mol. weight selenospecies, including the major compound, from the aqueous extract of monkeypot (Lecythis minor) nuts. The following reversed-phase nanoHPLC-electrospray Q-TOF-MS/MS allowed the formal standardless identification of selenocystathionine and two isoforms of γ-glutamyl-selenocystathionine. This is the first MS and MS/MS-based formal evidence of the presence of these compds. in a biol. sample.
REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:380716 CAPLUS
DOCUMENT NUMBER: 146:357736
TITLE: Production of organic and inorganic selenium compounds by lactic acid bacteria
INVENTOR(S): Teo, Alex Yeow-Lim; Hon, Sook-Mei; Se, Chea-Yun; Ian, Hai Meng
PATENT ASSIGNEE(S): Singapore
SOURCE: U.S. Pat. Appl. Publ., 10pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070077238	A1	20070405	US 2005-243391	20051004
WO 2007044340	A2	20070419	WO 2006-US38652	20061004
WO 2007044340	A3	20080502		
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PRIORITY APPLN. INFO.: US 2005-243391 A 20051004
WO 2006-US38652 W 20061004
AB A novel strain of lactic acid bacteria was found to be heat resistant and able to grow in a sulfur-limiting medium (SLM) containing a high concentration of sodium selenite. The microorganism is a non-spore forming and Gram-pos. coccus, which is identified with >90% confidence using the API biochem. and sugar fermentation tests, ribotyoing and 16S rRNA sequencing as Pediococcus pentosaceus SP80. In the current study, P. pentosaceus SP80 grown on SLM

containing 250 ppm sodium selenite produced both organic and inorg. forms of selenium. These selenium compds. can be separated using an anion exchange chromatog. technique. The concns. of selenium detected in the organic and inorg. fractions were 4.34 and 21.7 ppm, resp. Selenium-enriched bacteria are useful as a source of selenium for supplementing the diets of animals and humans. Animals fed efficacious amts. of the selenium-enriched bacteria show improved feed conversion rates and higher levels of glutathione peroxidase (GPx) activity in heart, kidney and liver tissues indicating an increased absorption and retention of selenium over control diets.

L6 ANSWER 6 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:63602 CAPLUS
DOCUMENT NUMBER: 146:143001
TITLE: Preparation of seleno amino acids as enhanced bioavailable sources of selenium in animal diets
INVENTOR(S): Abdel-Monem, Mahmoud M.; Anderson, Michael D.
PATENT ASSIGNEE(S): Zinpro Corporation, USA
SOURCE: U.S. Pat. Appl. Publ., 8pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070015829	A1	20070118	US 2005-181264	20050714
AU 2006270349	A1	20070125	AU 2006-270349	20060706
CA 2614479	A1	20070125	CA 2006-2614479	20060706
WO 2007011563	A1	20070125	WO 2006-US26652	20060706
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EP 1902020	A1	20080326	EP 2006-786713	20060706
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MX 200800498	A	20080512	MX 2008-498	20080110
CN 101223134	A	20080716	CN 2006-80025742	20080114
KR 2008026655	A	20080325	KR 2008-703616	20080214
US 20080311277	A1	20081218	US 2008-195155	20080820
PRIORITY APPLN. INFO.:			US 2005-181264 A	20050714
			WO 2006-US26652 W	20060706

OTHER SOURCE(S): CASREACT 146:143001; MARPAT 146:143001
AB The invention relates to novel derivs. of seleno amino acids, particularly selenomethionine, that are effective dietary sources of supplemental selenium in humans and livestock. The novel derivs. have improved phys., chemical or biol. properties over the parent seleno amino acid. Thus, N-succinyl-L-selenomethionine was prepared and shown to be a more bioavailable source of dietary selenium than sodium selenite in lactating cows.

L6 ANSWER 7 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:1124498 CAPLUS
DOCUMENT NUMBER: 145:437641
TITLE: Compositions containing Allium sativum linn. (garlic) naturally enriched with organic selenium compounds for nutritional supplementation
INVENTOR(S): Majeed, Muhammed; Bammi, Rajinder Kumar; Badmaev, Vladimir; Prakash, Subbalakshmi; Nagabhushanam, Kalyanam
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 4pp., Cont.-in-part of U.S. Ser. No. 605,578.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060240126	A1	20061026	US 2005-164787	20051206
US 7014874	B1	20060321	US 2003-605578	20031009
AU 2006321973	A1	20070614	AU 2006-321973	20061206
WO 2007067600	A2	20070614	WO 2006-US46519	20061206
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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
EP 1968620	A2	20080917	EP 2006-839082	20061206
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				

PRIORITY APPLN. INFO.:

US 2003-605578	A2	20031009
US 2003-249239	A2	20030325
US 2003-367274P	P	20030326
US 2005-164787	A	20051206
WO 2006-US46519	W	20061206

AB The invention discloses selenium enriched garlic compns. that are a safe and efficacious means of providing supplemental amts. of the essential trace mineral nutrient selenium, to humans and animals. An example is give for preparation of a composition containing selectively fractionated bioactive organic
Se compds. from Se-enriched Allium sativum. The concentrate contained Se compds. such a methylselenic acid, allyl selenocysteine,, and L-selenomethionine.

L6 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:1092839 CAPLUS
DOCUMENT NUMBER: 146:137842
TITLE: Selenomethionine Extraction from Selenized Yeast: an LC-MS Study of the Acid Hydrolysis of a Synthetic Selenopeptide
AUTHOR(S): McSheehy, Shona; Yang, Lu; Mester, Zoltan
CORPORATE SOURCE: Institute for National Measurement Standards, National Research Council of Canada, Ottawa, ON, K1A 0R9, Can.

SOURCE: Microchimica Acta (2006), 155(3-4), 373-377
CODEN: MIACAQ; ISSN: 0026-3672
PUBLISHER: Springer Wien
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A synthetically prepared seleno-peptide (AHPDVLTVXLQMLDDGR) was used as a model system for the acid hydrolysis of selenized yeast proteins. The seleno-peptide is a tryptic peptide of a heat shock protein 104 from Saccharomyces cerevisiae, was subjected to acid hydrolysis using methanesulfonic acid over a time period of 8 h. Aliquots of the solution were sub-sampled at predetd. time intervals and the peptide fragments characterized by reversed phase LC MSn. Similarly, the appearance of amino acid residues in the solution was monitored. After about 8 h the synthetic peptide completely hydrolyzed. The use of a selenopeptide as a model for hydrolysis of selenized yeast hydrolysis was validated by comparing the decomposition time profile of the synthetic peptide with that of a selenized yeast sample. The rate of hydrolysis was identical in both systems, suggesting that the employed acid hydrolysis yields to the complete decomposition of the Se containing proteins in yeast and consequently to the liberation of selenomethionine.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:265217 CAPLUS
DOCUMENT NUMBER: 144:318477
TITLE: Compositions and methods containing Allium sativum Linn. (garlic) naturally enriched with organic selenium compounds for nutritional supplementation
INVENTOR(S): Majeed, Muhammed; Bammi, Rajinder Kumar; Badmaev, Vladimir; Prakash, Subbalakshmi; Kalyanam, Nagabhushanam
PATENT ASSIGNEE(S): Sami Labs Limited, India
SOURCE: U.S., 11 pp., Cont.-in-part of U.S. Ser. No. 249,239.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 7014874	B1	20060321	US 2003-605578		20031009
IN 2004CH00210	A	20051202	IN 2004-CH210		20040310
US 20060240126	A1	20061026	US 2005-164787		20051206
PRIORITY APPLN. INFO.:			US 2003-249239	A2	20030325
			US 2003-367274P	P	20030326
			US 2003-605578	A	20031009

AB The invention discloses a method to prepare concs. from Allium sativum Linn. (garlic) bulbs naturally enriched with an unique composition of organic selenium compds. and the use of such concs. in nutritional supplement compns. for human and animal use. The resulting compns. provide a safe and efficacious means of providing supplemental amts. of the essential trace mineral nutrient selenium for diverse health benefits. For example, 100 kg of selenium-enriched garlic bulbs prepared by soilless culture technique were crushed and subjected to multistage supercrit. fluid extraction followed by chromatog. separation High pressure carbon dioxide (10 to 60 MPa), modified with ethanol and water (50:50), was used to extract selenium-containing nonprotein amino acids as well as selenoamino acid dipeptides. These were separated and purified using preparative HPLC, the mobile phase and water were

removed by evaporation under reduced pressure and freeze drying, to yield bioactive selenoamino acid and selenoamino acid dipeptide fractions. The fractions obtained were blended with natural garlic powder to yield a composition containing 100 to 2000 ppm of selenium in the form of organic selenium compds. The composition of the selenium enrichment concentrate was configured to provide 1000 ppm organic selenium content in natural garlic powder containing 200 ppm alliin. A composition of enrichment concentrate contained N-γ(L-Glutamyl)Se-methyl-L-selenocysteine 1340 ppm, N-γ(L-Glutamyl)L-selenomethionine 40 ppm, L-Selenomethionine 125 ppm, and Se-Methyl-L-selenocysteine 1385 ppm, corresponding to 340 ppm, 10 ppm, 50 ppm, and 600 ppm elemental selenium, resp. The results of the open prospective single dose clin. study in human subjects suggest that the composition effectively reduces oxidative stress levels, and is safe for use as an antioxidant nutritional supplement.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:14419 CAPLUS

DOCUMENT NUMBER: 142:114471

TITLE: Preparation of glycosylated amino acids, proteins and peptides via olefin metathesis reactions

INVENTOR(S): Davis, Benjamin Guy; Kramer, Holger Bernd Ralf

PATENT ASSIGNEE(S): Isis Innovation Limited, UK

SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005000873	A1	20050106	WO 2004-GB2738	20040624

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 2003-14741 A 20030624

AB A method for the preparation of a glycosylated amino acid, protein or peptide comprises reacting an unprotected carbohydrate containing a carbon-carbon double bond (e.g., an allyl or vinyl C-glycoside) with an amino acid, a protein or a peptide containing a side-chain carbon-carbon double bond under olefin metathesis reaction conditions. The side-chain carbon-carbon double bond is introduced by (a) oxidizing the sulfur in methionine or the selenium in selenomethione or homoselenocysteine and (b) eliminating the sulfoxide or selenoxide. Thus, 3-(α-D-glucopyranosyl)propene, prepared by pivaloylation-allylation of glucose, was reacted with vinylglycine (vG) tripeptide Ac-vG-Ser-Phe-OMe in the presence of Grubbs-Hoveyda catalyst to afford the desired cross-metathesis product in mixture with the C-glycoside homodimer byproduct.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:467738 CAPLUS
DOCUMENT NUMBER: 141:17591
TITLE: Agent having a destructive effect on malignant tumors and method for the production
INVENTOR(S): Groke, Karl; Herwig, Ralf
PATENT ASSIGNEE(S): C.Y.L. Handelsges. m.b.H., Austria; Ferdinand, Peter
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004047832	A1	20040610	WO 2003-EP50712	20031013
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AT 2002001778	A	20040815	AT 2002-1778	20021127
AT 412447	B	20050325		
CA 2507273	A1	20040610	CA 2003-2507273	20031013
AU 2003285351	A1	20040618	AU 2003-285351	20031013
EP 1565176	A1	20050824	EP 2003-778338	20031013
EP 1565176	B1	20060524		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006508998	T	20060316	JP 2004-554531	20031013
AT 326958	T	20060615	AT 2003-778338	20031013
PT 1565176	T	20061031	PT 2003-778338	20031013
ES 2268452	T3	20070316	ES 2003-778338	20031013
US 20060292218	A1	20061228	US 2006-536777	20060907

PRIORITY APPLN. INFO.:		
AT 2002-1778	A	20021127
EP 2003-778338	A	20031013
WO 2003-EP50712	W	20031013

AB Disclosed is an agent which has a destructive effect on malignant tumors and contains alpha-ketoglutaric acid, N-acetyl-seleno-L-methionine, N-acetyl-L-methionine, and a compound that is capable of forming azomethine and is selected among the group 5-hydroxymethylfurfural, dehydroascorbic acid, maltol, and vanillin as an active substance, 5-hydroxymethylfurfural being preferred. The inventive agent can be used in the form of an infusion, in an oral or rectal form of administration, or as an irrigation in cancer therapy. The treatment of cancer patients with the following infusion solution is reported: α-ketoglutaric acid 9.0 g/L; 5-hydroxymethyl furfural 3.0 g/L; N-acetyl-seleno-L-methionine 2.0 mg/L; N-acetyl-L-methionine 100.00 mg/L; glucose 30.0 g/L; sodium and potassium ions to set pH.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 12 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:37284 CAPLUS

DOCUMENT NUMBER: 140:338109
TITLE: Element selective characterization of stability and reactivity of selenium species in selenized yeast
AUTHOR(S): Uden, Peter C.; Totoe Boakye, Harriet; Kahakachchi, Chethaka; Hafezi, Rameh; Nolibos, Paula; Block, Eric; Johnson, Sherida; Tyson, Julian F.
CORPORATE SOURCE: Department of Chemistry, Lederle Graduate Research, University of Massachusetts, Amherst, MA, 01003-9336, USA
SOURCE: Journal of Analytical Atomic Spectrometry (2004), 19(1), 65-73
CODEN: JASPE2; ISSN: 0267-9477
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The concerted application of element specific atomic spectral detection for chromatog. eluent monitoring allows previously unexploited qual. and quant. anal. concepts to be developed for the determination of selenium species.
Selenium speciation is vital in order to better understand its metabolism and biol. significance in clin. chemical, biol., toxicol., and nutrition. Fluoroacid ion pair HPLC with ICP-MS detection and GC derivatization with atomic emission detection (AED) together aid anal. and elucidation of reaction pathways of selenium compds. in high selenium enriched yeast, as used widely in nutritional and clin. cancer preventative studies. Comparisons between currently produced and archived selenized yeasts show major differences in speciation. The formation of selenomethionine selenoxide and the identification of Se-S bonded S-(selenomethyl)-cysteine in archived nutritional yeast may be important for short and long term stability and nutritional activity studies.
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 13 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:465507 CAPLUS
DOCUMENT NUMBER: 139:193209
TITLE: Incorporation of selenomethionine into proteins through selenohomocysteine-mediated ligation
AUTHOR(S): Roelfes, Gerard; Hilvert, Donald
CORPORATE SOURCE: Laboratorium fur Organische Chemie Swiss Federal Institute of Technology (ETH) ETH-Honggerberg, Zurich, 8093, Switz.
SOURCE: Angewandte Chemie, International Edition (2003), 42(20), 2275-2277
CODEN: ACIEF5; ISSN: 1433-7851
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 139:193209
AB Site-selective incorporation of selenomethionine into proteins in place of methionine provides a unique spectroscopic probe of local protein structure and dynamics. This was demonstrated with seleno-bPP 1, a synthetic variant of a peptide hormone prepared by ligation of a C-terminal peptide thioester with a peptide fragment containing an N-terminal selenohomocysteine, followed by methylation of the resulting selenol (see scheme; bPP = bovine pancreatic peptide).
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:647093 CAPLUS
DOCUMENT NUMBER: 137:324342

TITLE: Characterization of Selenium Species in Brazil Nuts by HPLC-ICP-MS and ES-MS
AUTHOR(S): Vonderheide, Anne P.; Wrobel, Kazimierz; Kannamkumarath, Sasi S.; B'Hymer, Clayton; Montes-Bayon, Maria; Ponce de Leon, Claudia; Caruso, Joseph A.
CORPORATE SOURCE: Department of Chemistry, University of Cincinnati, Cincinnati, OH, 45221-0172, USA
SOURCE: Journal of Agricultural and Food Chemistry (2002), 50(20), 5722-5728
CODEN: JAFCAU; ISSN: 0021-8561
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Brazil nuts have been classified as the foodstuffs that contain the highest level of unadulterated selenium, an essential trace element that appears to prevent cancer. To date, characterization of the selenium species in Brazil nuts has not yet been investigated. In this work, various sample preparation approaches, including microwave extns. and enzymic treatments, are examined with the goal of species preservation and subsequent selenium speciation; of these approaches, an enzymic treatment with Proteinase K proved most effective. High-performance liquid chromatog. (HPLC) separation strategies and inductively coupled plasma mass spectrometry (ICP-MS) detection schemes are also considered. Exts. are evaluated against available stds. for the com. obtainable seleno-amino acids, selenomethionine (SeMet), selenoethionine (SeEt), and selenocystine (SeCys); selenomethionine was demonstrated to be the most abundant of these seleno-amino acids. Further characterization of unidentified selenium-containing peaks was attempted by the employment of several procedures, including electrospray-mass spectrometry (ES-MS). A peptide structure was identified; however, this was considered a tentative proposal due to the large background produced by the extremely complicated Brazil nut matrix.
REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 15 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2000:289358 CAPLUS
DOCUMENT NUMBER: 133:88660
TITLE: Chemical speciation influences comparative activity of selenium-enriched garlic and yeast in mammary cancer prevention
AUTHOR(S): Ip, Clement; Birringer, Marc; Block, Eric; Kotrebai, Mihaly; Tyson, Julian F.; Uden, Peter C.; Lisk, Donald J.
CORPORATE SOURCE: Department of Experimental Pathology, Roswell Park Cancer Institute, Buffalo, NY, 14263, USA
SOURCE: Journal of Agricultural and Food Chemistry (2000), 48(6), 2062-2070
CODEN: JAFCAU; ISSN: 0021-8561
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Daily supplementation with selenized yeast (Se-yeast) in humans can lead to decreased overall cancer morbidity and mortality by nearly 50%. Selenized garlic (Se-garlic) is effective in mammary cancer prevention in rats. Certain biol. activities of Se-garlic and Se-yeast were studied to elucidate the differences based on the chemical forms of Se found in these 2 natural products. Characterization of organic Se compds. in yeast (1922 μg Se/g) and garlic (296 μg Se/g) was carried out by HPLC with ICP-MS or with electrospray MS. Anal. speciation studies showed that the bulk of Se in Se-garlic and Se-yeast is in the form of

γ-glutamyl-Se-methylselenocysteine (73%) and selenomethionine (85%), resp. The above methodol. has the sensitivity and capability to account for >90% of total Se. In rat feeding studies, addition of Se-garlic to the diet at different levels consistently led to lower total tissue Se accumulation when compared to Se-yeast. Se-garlic was more effective in suppressing the development of premalignant lesions and formation of adenocarcinomas in the mammary gland of female Sprague-Dawley rats treated with carcinogens (methylnitrosourea, dimethylbenz[α]anthracene). The metabolism of selenomethionine and γ-glutamyl-Se-methylselenocysteine is discussed in relation to their tissue deposition which may account for differences in their cancer chemopreventive activity.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 16 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2000:161317 CAPLUS
DOCUMENT NUMBER: 132:191222
TITLE: Crystal structure of farnesyl protein transferase compositions and their use for drug design
INVENTOR(S): Strickland, Corey; Weber, Patricia C.
PATENT ASSIGNEE(S): Schering Corporation, USA
SOURCE: PCT Int. Appl., 180 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000012543	A2	20000309	WO 1999-US18819	19990826
WO 2000012543	A3	20000615		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CZ, DE, DK, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MD, MG, MK, MN, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UZ, VN, YU, ZA				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9956787	A	20000321	AU 1999-56787	19990826
PRIORITY APPLN. INFO.:			US 1998-141651 A	19980828
			WO 1999-US18819 W	19990826

AB The present invention relates to crystalline compns. comprising rat farnesyl protein transferase polypeptides in complex with substrates and inhibitors. Atomic coordinates from x-ray diffraction and 3-dimensional structures are provided for rat farnesyl protein transferase complexed with (1) a substrate (farnesyl diphosphate. FPP) analog (α-hydroxyphosphonic acid) and a Ras model peptide (Ac-Cys-Val-Ile-Met) at 2.4 Å resolution, (2) FPP and the inhibitor SCH66701 at 2.9 Å resolution, (3) FPP and SCH66381 at 2.2 Å resolution, and (4) FPP and SCH69132 at 2.5 Å resolution Also disclosed are crystallization conditions for these compns. and their use for structural determination of FPT:FPP/FPP analog:peptide/inhibitor complexes. Drug discovery efforts directed toward farnesyl protein transferase (FPT) inhibitors have been hampered by the lack of adequate structural information about FPT and its complex with substrates and inhibitors. Thus, the present information can be used to design more potent, selective and metabolically stable FPT inhibitors for use as drugs against cancer.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 17 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2000:98793 CAPLUS
DOCUMENT NUMBER: 132:148502
TITLE: Crystal structure of farnesyl protein transferase compositions and their use for drug design
INVENTOR(S): Strickland, Corey; Wu, Zhen; Windsor, William T.; Weber, Patricia C.
PATENT ASSIGNEE(S): Schering Corporation, USA
SOURCE: PCT Int. Appl., 165 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000006748	A2	20000210	WO 1999-US16684	19990729
WO 2000006748	A3	20000316		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MD, MG, MK, MN, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UZ, VN, YU, ZA				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9952257	A	20000221	AU 1999-52257	19990729
PRIORITY APPLN. INFO.:			US 1998-126163 A	19980730
			WO 1999-US16684 W	19990729

AB The present invention relates to crystalline compns. comprising farnesyl protein transferase-like polypeptides in complex with substrates and inhibitors. Atomic coordinates from x-ray diffraction are provided for a Δ10-C-terminal deletion mutation of rat farnesyl protein transferase complexed with (1) its natural substrate (farnesyl diphosphate. FPP) or a substrate analog (α-hydroxyphosphonic acid), and (2) a Ras model peptide (Ac-Cys-Val-Ile-Met) or an inhibitor compound (SCH1180 or SCH44342). Also disclosed are crystallization conditions for these compns. and their use for structural determination of FPT:FPP/FPP analog: peptide/inhibitor complexes. Drug discovery efforts directed toward farnesyl protein transferase (FPT) inhibitors have been hampered by the lack of adequate structural information about FPT and its complex with substrates and inhibitors. Thus, the present information can be used to design more potent, selective and metabolically stable FPT inhibitors for use as drugs against cancer.
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 18 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1999:345005 CAPLUS
DOCUMENT NUMBER: 131:169442
TITLE: Identification of the principal selenium compounds in selenium-enriched natural sample extracts by ion-pair liquid chromatography with inductively coupled plasma- and electrospray ionization-mass spectrometric detection
AUTHOR(S): Kotrebai, Mihaly; Tyson, Julian F.; Uden, Peter C.; Birringer, Marc; Block, Eric
CORPORATE SOURCE: Lederle Graduate Research Tower A, Department of Chemistry, University of Massachusetts, Amherst, MA, 01003-4510, USA

SOURCE: Analytical Communications (1999), 36(6), 249-252
CODEN: ANCOFE; ISSN: 1359-7337
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Selenium-enriched garlic and yeast sample exts. and digests were analyzed using ion-pair high performance liquid chromatog. (HPLC) with online inductively coupled plasma-mass spectrometric (ICP-MS) and electrospray ionization-mass spectrometric (ESI-MS) detection. The principal selenium compds. in these samples were identified as selenomethionine, and Se-adenosyl-selenohomocysteine in yeast, and γ-glutamyl-Se-methyl-selenocysteine and possibly γ-glutamyl-selenomethionine in garlic. The compds. identified account for 85 and 90% of the total selenium content of the yeast and the garlic samples, resp. Online HPLC-ESI-MS selected ion chromatograms (SIC) and mass spectra of selenium compds. extracted from selenium enriched samples are presented. Limits of quantification (LOQ, defined as S/N = 10) for HPLC-ICP-MS were in the range 10-50 ng/mL Se in the injected exts. LOQ values for HPLC-ESI-MS were .apprx.100 times higher than those of HPLC-ICP-MS.
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 19 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1998:701644 CAPLUS
DOCUMENT NUMBER: 130:62882
TITLE: Crystal Structure of Farnesyl Protein Transferase Complexed with a CaaX Peptide and Farnesyl Diphosphate Analog
AUTHOR(S): Strickland, Corey L.; Windsor, William T.; Syto, Rosalinda; Wang, Lynn; Bond, Richard; Wu, Zhen; Schwartz, Jeffrey; Le, Hung V.; Beese, Lorena S.; Weber, Patricia C.
CORPORATE SOURCE: Structural Chemistry and Tumor Biology Departments, Schering-Plough Research Institute, Kenilworth, NJ, 07033-0539, USA
SOURCE: Biochemistry (1998), 37(47), 16601-16611
CODEN: BICHAW; ISSN: 0006-2960
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The crystallog. structure of acetyl-Cys-Val-Ile-selenoMet-COOH and α-hydroxyfarnesylphosphonic acid (αHFP) complexed with rat farnesyl protein transferase (FPT) (space group P61, a = b = 174.13 Å, c = 69.71 Å, α = β = 90°, γ = 120°, Rfactor = 21.8%, Rfree = 29.2%, 2.5 Å resolution) is reported. In the ternary complex, the bound substrates are within van der Waals contact of each other and the FPT enzyme. αHFP binds in an extended conformation in the active-site cavity where pos. charged side chains and solvent mols. interact with the phosphate moiety and aromatic side chains pack adjacent to the isoprenoid chain. The backbone of the bound CaaX peptide adopts an extended conformation, and the side chains interact with both FPT and αHFP. The cysteine sulfur of the bound peptide coordinates the active-site zinc. Overall, peptide binding and recognition appear to be dominated by side-chain interactions. Comparison of the structures of the ternary complex and unliganded FPT [Park, H., Boduluri, S., Moomaw, J., Casey, P., and Beese, L. (1997) Science 275, 1800-1804] shows that major rearrangements of several active site side chains occur upon substrate binding.
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 20 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1998:485713 CAPLUS
DOCUMENT NUMBER: 129:146163
ORIGINAL REFERENCE NO.: 129:29727a,29730a
TITLE: Acylase I-catalyzed deacetylation of N-acetyl-L-cysteine and S-alkyl-N-acetyl-L-cysteines
AUTHOR(S): Uttamsingh, Vinita; Keller, D. A.; Anders, M. W.
CORPORATE SOURCE: Department of Pharmacology and Physiology, University of Rochester, Rochester, NY, 14642, USA
SOURCE: Chemical Research in Toxicology (1998), 11(7), 800-809
CODEN: CRTOEC; ISSN: 0893-228X
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The aminoacylase that catalyzes the hydrolysis of N-acetyl-L-cysteine (NAC) was identified as acylase I after purification by column chromatog. and electrophoretic anal. Rat kidney cytosol was fractionated by ammonium sulfate precipitation, and the proteins were separated by ion-exchange column chromatog., gel-filtration column chromatog., and hydrophobic interaction column chromatog. Acylase activity with NAC and N-acetyl-L-methionine (NAM), a known substrate for acylase I, as substrates coeluted during all chromatog. steps. Sodium dodecyl sulfate-polyacrylamide gel electrophoresis showed that the protein was purified to near homogeneity and had a subunit Mr of 43 000, which is identical with the Mr of acylase I from porcine kidney and bovine liver. N-Butylmalonic acid was a slow-binding inhibitor of acylase I and inhibited the deacetylation of NAC with a Ki of 192 ± 27 μM. These results show that acylase I catalyzes the deacetylation of NAC. The acylase I-catalyzed deacetylation of a range of S-alkyl-N-acetyl-L-cysteines, their carbon and oxygen analogs, and the selenium analog of NAM was also studied with porcine kidney acylase I. The specific activity of the acylase I-catalyzed deacetylation of these substrates was related to their calculated molar volumes and log P values. The S-alkyl-N-acetyl-L-cysteines with short (C0-C3) and unbranched S-alkyl substituents were good acylase I substrates, whereas the S-alkyl-N-acetyl-L-cysteines with long (>C3) and branched S-alkyl substituents were poor acylase I substrates. The carbon and oxygen analogs of S-methyl-N-acetyl-L-cysteine and the carbon analog of S-ethyl-N-acetyl-L-cysteine were poor acylase I substrates, whereas the selenium analog of NAM was a good acylase I substrate.
REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 21 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1997:722992 CAPLUS
DOCUMENT NUMBER: 127:331721
ORIGINAL REFERENCE NO.: 127:65157a,65160a
TITLE: L-methionine related L-amino acids by acylase cleavage of their corresponding N-acetyl-DL-derivatives
AUTHOR(S): Bommarius, Andreas S.; Drauz, Karlheinz; Gunther, Kurt; Knaup, Gunter; Schwarm, Michael
CORPORATE SOURCE: Degussa AG, Specialty Chemicals, R and D Fine Chemicals, Hanau, D-63403, Germany
SOURCE: Tetrahedron: Asymmetry (1997), 8(19), 3197-3200
CODEN: TASYE3; ISSN: 0957-4166
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 127:331721
AB Acylase I from Aspergillus oryzae is an even more useful enzyme than suggested so far. Besides standard amino acids such as L-Met, L-Val and L-Phe, a number of addnl. sulfur- and selenium-containing amino acids can be obtained at useful reaction rates and in very high enantiomeric purity by

kinetic resolution of the resp. N-acetyl-DL-amino acids.
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 22 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1996:30201 CAPLUS
DOCUMENT NUMBER: 124:203067
ORIGINAL REFERENCE NO.: 124:37565a,37568a
TITLE: A New Efficient Synthesis of Acetyltelluro- and Acetylselenomethionine and Their Use in the Biosynthesis of Heavy-Atom Protein Analogs
AUTHOR(S): Karnbrock, Wilhelm; Weyher, Elisabeth; Budisa, Nediljko; Huber, Robert; Moroder, Luis
CORPORATE SOURCE: Max-Planck-Institut fuer Biochemie, Martinsried, 82152, Germany
SOURCE: Journal of the American Chemical Society (1996), 118(4), 913-14
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 124:203067
AB N-Acetyl-DL-telluromethionine and N-acetyl-DL-selenomethionine were obtained in good yields upon reaction of racemic 2-(acetylamino)butyrolactone with MeTeLi and MeSeLi, resp., and their enantioselective hydrolysis with aminoacylase generated the related L-amino acids. The biosynthesis of all-Met(Te)- and all-Met(Se)-annexin V with the racemic acetyl derivs. was as efficient, if not better than the use of the related L-amino acids.

L6 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1993:184565 CAPLUS
DOCUMENT NUMBER: 118:184565
ORIGINAL REFERENCE NO.: 118:31479a,31482a
TITLE: Synthesis of a genetically engineered repetitive polypeptide containing periodic selenomethionine residues
AUTHOR(S): Dougherty, Michael J.; Kothakota, Srinivas; Mason, Thomas L.; Tirrell, David A.; Fournier, Maurille J.
CORPORATE SOURCE: Dep. Biochem. Mol. Biol., Univ. Massachusetts, Amherst, MA, 01003, USA
SOURCE: Macromolecules (1993), 26(7), 1779-81
CODEN: MAMOBX; ISSN: 0024-9297
DOCUMENT TYPE: Journal
LANGUAGE: English
AB This report describes the synthesis of the first genetically engineered repetitive polypeptide containing selenomethionine, an unnatural amino acid. A synthetic gene was constructed to encode nine repeats of the octapeptide sequence {(GlyAla)3GlyMet} as a fusion protein at the carboxy terminus of glutathione-S-transferase. This gene was introduced into an Escherichia coli strain requiring methionine for growth. No growth was observed in the absence of L-methionine, but growth could be maintained at a reduced rate in the presence of L-selenomethionine. Induction of the target gene produced a protein corresponding in mol. weight to the desired product in the presence of either methionine or selenomethionine. The extent to which selenomethionine will replace methionine was determined in competition expts. using 35S-methionine and unlabeled selenomethionine. Consistent with the expression data obtained in minimal medium supplemented solely with selenomethionine, results from densitometric scanning of autoradiographs indicate that the natural amino acid was completely replaced by the selenium-containing analog.

L6 ANSWER 24 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1985:169 CAPLUS
DOCUMENT NUMBER: 102:169
ORIGINAL REFERENCE NO.: 102:27a,30a
TITLE: Structure-activity relations for the fifth amino acid position of enkephalins, substitution of amino acids, and introduction of hydrophobic residues
AUTHOR(S): Valencia, G.; Reig, F.; Garcia-Anton, J. Maria; Garcia-Dominguez, J.
CORPORATE SOURCE: CSIC, Spain
SOURCE: Investigacion e Informacion Textil y de Tensioactivos (1984), 27(2-3), 135-54
CODEN: IITTCS; ISSN: 0302-5268
DOCUMENT TYPE: Journal
LANGUAGE: Spanish
AB Enkephalin analogs were prepared and their physicochem. and pharmacol. properties studied in an attempt to elucidate the mechanism of action of narcotics. Met-enkephalin [58569-55-4] and analogs where the Met was replaced with SeMet, Ser, Thr, etc., were examined for the effect of the position of S, of the presence of a heteroatom or OH, and of the length of the chain on activity. Leu-enkephalin analogs with a C6-C14 chain covalently bound to Leu-enkephalin were examined for relation between physicochem. properties and opiate activity. The guinea pig ileum test was used to evaluate opiate activity.

L6 ANSWER 25 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1976:429856 CAPLUS
DOCUMENT NUMBER: 85:29856
ORIGINAL REFERENCE NO.: 85:4841a,4844a
TITLE: Isolation and identification of two isomeric glutamylselenocystathionines from the seeds of Astragalus pectinatus
AUTHOR(S): Nigam, S. N.; McConnell, W. B.
CORPORATE SOURCE: Dep. Chem., Univ. Regina, Regina, SK, Can.
SOURCE: Biochimica et Biophysica Acta, General Subjects (1976), 437(1), 116-21
CODEN: BBGSB3; ISSN: 0304-4165
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Two glutamylselenocystathionines were isolated from the seeds of A. pectinatus. They were identified as 2-γ-glutamylamino-4-(2-amino-2-carboxyethylselenyl)butyric acid and 2-amino-4-(2-γ-glutamylamino-2-carboxyethylselenyl)butyric acid. The evidence for the natural occurrence of the corresponding glutamylcystationines is also presented.

L6 ANSWER 26 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1968:487433 CAPLUS
DOCUMENT NUMBER: 69:87433
ORIGINAL REFERENCE NO.: 69:16387a,16390a
TITLE: A convenient synthesis of γ-benzylselenohomocysteine and the preparation of optically active selenomethionine
AUTHOR(S): Zdansky, Goran
CORPORATE SOURCE: Univ. Uppsala, Uppsala, Swed.
SOURCE: Arkiv foer Kemi (1968), 29(35), 437-42
CODEN: ARKEAD; ISSN: 0365-6128
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A mixture of 34 g. PhCH2SeH, 11.5 g. acrolein, and a few drops of Et3N is kept in ice 30 min. to give 68% PhCH2SeCH2CH2CHO (I), b0.2 122-4°, n25D 1.5860. A mixture of 30.6 g. I and 140 ml. MeOH is added to a solution of

11.5 g. NaCN, 45 g. (NH4)2CO3, and 10.2 g. NH4Cl in 115 ml. water and 57 ml. MeOH and the mixture is heated 20 hrs. at 55° to give 70% 5-(2-benzylselenoethyl)hydantoin (II), m. 123-4°. II (12.0 g.) is heated with 8.0 g. MeOH in 50 ml. water 1 day at 108° to give 86% γ-benzylselenohomocysteine (III). III (8.2 g.) in 15 ml. 2N NaOH and 6 ml. water is treated with 4 ml. Ac2O and 20 ml. 2N NaOH to give N-acetyl-γ-benzylselenohomocysteine (IV), m. 99-100°. IV (8.8 g.) is dissolved in 30 ml. N NaOH and 122 ml. 0.2M citrate buffer (pH 5), 5.7 g. aniline is added, the mixture is heated to give a solution, 2.4 g. papain is extracted with 21 ml. water and filtered, 0.45 g. L-cysteine-HCl is dissolved in 16 ml. citrate buffer, and the 3 solns. are mixed. The mixture is treated with 93 ml. citrate buffer and kept at 0° to give 90% L-IV, m. 156-7°; 0.1082 g. is dissolved in HOAc to 10.00 ml.: [α]25D -14.8° (c 1.082, HOAc). The mother liquor gives 93% D-VI, m. 137-8°, [α]25D -14.5° (c 1.009, HOAc). L-IV anilide is hydrolyzed to 88% L-III, 0.1025 g. L-III is dissolved in N HCl to 10.0 ml.: [α]25D 15.5°. Similarly prepared is D-III, α25D -0.158°, [α]25D -15.4° (N HCl). L-III (1.36 g.) is added to .apprx.30 ml. liquid NH3, Na shavings are added, NH4Cl is added to remove the blue color, and the mixture is kept at-70° and worked up to give 65% L-selenomethionine, [α]25D 18.1° (NHCl). Similarly prepared is D-selenomethionine, [α]25D -18.3° (N HCl). Rf values are given for the selenomethionines.

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=> s l3
L7 5 L3

=> d l7 1-5 ibib abs

L7 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:14419 CAPLUS
DOCUMENT NUMBER: 142:114471
TITLE: Preparation of glycosylated amino acids, proteins and peptides via olefin metathesis reactions
INVENTOR(S): Davis, Benjamin Guy; Kramer, Holger Bernd Ralf
PATENT ASSIGNEE(S): Isis Innovation Limited, UK
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005000873	A1	20050106	WO 2004-GB2738	20040624

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 2003-14741 A 20030624
AB A method for the preparation of a glycosylated amino acid, protein or peptide comprises reacting an unprotected carbohydrate containing a carbon-carbon

double bond (e.g., an allyl or vinyl C-glycoside) with an amino acid, a protein or a peptide containing a side-chain carbon-carbon double bond under olefin metathesis reaction conditions. The side-chain carbon-carbon double bond is introduced by (a) oxidizing the sulfur in methionine or the selenium in selenomethione or homoselenocysteine and (b) eliminating the sulfoxide or selenoxide. Thus, 3-(α-D-glucopyranosyl)propene, prepared by pivaloylation-allylation of glucose, was reacted with vinylglycine (vG) tripeptide Ac-vG-Ser-Phe-OMe in the presence of Grubbs-Hoveyda catalyst to afford the desired cross-metathesis product in mixture with the C-glycoside homodimer byproduct.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:467738 CAPLUS

DOCUMENT NUMBER: 141:17591

TITLE: Agent having a destructive effect on malignant tumors and method for the production

INVENTOR(S): Groke, Karl; Herwig, Ralf

PATENT ASSIGNEE(S): C.Y.L. Handelsges. m.b.H., Austria; Ferdinand, Peter

SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004047832	A1	20040610	WO 2003-EP50712	20031013
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AT 2002001778	A	20040815	AT 2002-1778	20021127
AT 412447	B	20050325		
CA 2507273	A1	20040610	CA 2003-2507273	20031013
AU 2003285351	A1	20040618	AU 2003-285351	20031013
EP 1565176	A1	20050824	EP 2003-778338	20031013
EP 1565176	B1	20060524		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006508998	T	20060316	JP 2004-554531	20031013
AT 326958	T	20060615	AT 2003-778338	20031013
PT 1565176	T	20061031	PT 2003-778338	20031013
ES 2268452	T3	20070316	ES 2003-778338	20031013
US 20060292218	A1	20061228	US 2006-536777	20060907

PRIORITY APPLN. INFO.:		
AT 2002-1778	A	20021127
EP 2003-778338	A	20031013
WO 2003-EP50712	W	20031013

AB Disclosed is an agent which has a destructive effect on malignant tumors and contains alpha-ketoglutaric acid, N-acetyl-seleno-L-methionine, N-acetyl-L-methionine, and a compound that is capable of forming azomethine and is selected among the group 5-hydroxymethylfurfural, dehydroascorbic acid, maltol, and vanillin as an active substance, 5-hydroxymethylfurfural being preferred. The inventive agent can be used in the form of an

infusion, in an oral or rectal form of administration, or as an irrigation in cancer therapy. The treatment of cancer patients with the following infusion solution is reported: α-ketoglutaric acid 9.0 g/L; 5-hydroxymethyl furfural 3.0 g/L; N-acetyl-seleno-L-methionine 2.0 mg/L; N-acetyl-L-methionine 100.00 mg/L; glucose 30.0 g/L; sodium and potassium ions to set pH.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1998:485713 CAPLUS
DOCUMENT NUMBER: 129:146163
ORIGINAL REFERENCE NO.: 129:29727a,29730a
TITLE: Acylase I-catalyzed deacetylation of N-acetyl-L-cysteine and S-alkyl-N-acetyl-L-cysteines
AUTHOR(S): Uttamsingh, Vinita; Keller, D. A.; Anders, M. W.
CORPORATE SOURCE: Department of Pharmacology and Physiology, University of Rochester, Rochester, NY, 14642, USA
SOURCE: Chemical Research in Toxicology (1998), 11(7), 800-809
CODEN: CRTOEC; ISSN: 0893-228X
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The aminoacylase that catalyzes the hydrolysis of N-acetyl-L-cysteine (NAC) was identified as acylase I after purification by column chromatog. and electrophoretic anal. Rat kidney cytosol was fractionated by ammonium sulfate precipitation, and the proteins were separated by ion-exchange column chromatog., gel-filtration column chromatog., and hydrophobic interaction column chromatog. Acylase activity with NAC and N-acetyl-L-methionine (NAM), a known substrate for acylase I, as substrates coeluted during all chromatog. steps. Sodium dodecyl sulfate-polyacrylamide gel electrophoresis showed that the protein was purified to near homogeneity and had a subunit Mr of 43 000, which is identical with the Mr of acylase I from porcine kidney and bovine liver. N-Butylmalonic acid was a slow-binding inhibitor of acylase I and inhibited the deacetylation of NAC with a Ki of 192 ± 27 μM. These results show that acylase I catalyzes the deacetylation of NAC. The acylase I-catalyzed deacetylation of a range of S-alkyl-N-acetyl-L-cysteines, their carbon and oxygen analogs, and the selenium analog of NAM was also studied with porcine kidney acylase I. The specific activity of the acylase I-catalyzed deacetylation of these substrates was related to their calculated molar volumes and log P values. The S-alkyl-N-acetyl-L-cysteines with short (C0-C3) and unbranched S-alkyl substituents were good acylase I substrates, whereas the S-alkyl-N-acetyl-L-cysteines with long (>C3) and branched S-alkyl substituents were poor acylase I substrates. The carbon and oxygen analogs of S-methyl-N-acetyl-L-cysteine and the carbon analog of S-ethyl-N-acetyl-L-cysteine were poor acylase I substrates, whereas the selenium analog of NAM was a good acylase I substrate.

REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1997:722992 CAPLUS
DOCUMENT NUMBER: 127:331721
ORIGINAL REFERENCE NO.: 127:65157a,65160a
TITLE: L-methionine related L-amino acids by acylase cleavage of their corresponding N-acetyl-DL-derivatives
AUTHOR(S): Bommarius, Andreas S.; Drauz, Karlheinz; Gunther, Kurt; Knaup, Gunter; Schwarm, Michael
CORPORATE SOURCE: Degussa AG, Specialty Chemicals, R and D Fine Chemicals, Hanau, D-63403, Germany
SOURCE: Tetrahedron: Asymmetry (1997), 8(19), 3197-3200

CODEN: TASYE3; ISSN: 0957-4166
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 127:331721
AB Acylase I from Aspergillus oryzae is an even more useful enzyme than suggested so far. Besides standard amino acids such as L-Met, L-Val and L-Phe, a number of addnl. sulfur- and selenium-containing amino acids can be obtained at useful reaction rates and in very high enantiomeric purity by kinetic resolution of the resp. N-acetyl-DL-amino acids.
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1996:30201 CAPLUS
DOCUMENT NUMBER: 124:203067
ORIGINAL REFERENCE NO.: 124:37565a,37568a
TITLE: A New Efficient Synthesis of Acetyltelluro- and Acetylselenomethionine and Their Use in the Biosynthesis of Heavy-Atom Protein Analogs
AUTHOR(S): Karnbrock, Wilhelm; Weyher, Elisabeth; Budisa, Nediljko; Huber, Robert; Moroder, Luis
CORPORATE SOURCE: Max-Planck-Institut fuer Biochemie, Martinsried, 82152, Germany
SOURCE: Journal of the American Chemical Society (1996), 118(4), 913-14
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 124:203067
AB N-Acetyl-DL-telluromethionine and N-acetyl-DL-selenomethionine were obtained in good yields upon reaction of racemic 2-(acetylamino)butyrolactone with MeTeLi and MeSeLi, resp., and their enantioselective hydrolysis with aminoacylase generated the related L-amino acids. The biosynthesis of all-Met(Te)- and all-Met(Se)-annexin V with the racemic acetyl derivs. was as efficient, if not better than the use of the related L-amino acids.

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                  substances identified in English-, French-, German-,
                  and Japanese-language basic patents from 2004-present
 NEWS  3  NOV 26  MARPAT enhanced with FSORT command
 NEWS  4  NOV 26  CHEMSAFE now available on STN Easy
 NEWS  5  NOV 26  Two new SET commands increase convenience of STN
                  searching
 NEWS  6  DEC 01  ChemPort single article sales feature unavailable
 NEWS  7  DEC 12  GBFULL now offers single source for full-text
                  coverage of complete UK patent families
 NEWS  8  DEC 17  Fifty-one pharmaceutical ingredients added to PS
 NEWS  9  JAN 06  The retention policy for unread STNmail messages
                  will change in 2009 for STN-Columbus and STN-Tokyo
 NEWS 10  JAN 07  WPIDS, WPINDEX, and WPIX enhanced Japanese Patent
                  Classification Data
 NEWS 11  FEB 02  Simultaneous left and right truncation (SLART) added
                  for CERAB, COMPUAB, ELCOM, and SOLIDSTATE
 NEWS 12  FEB 02  GENBANK enhanced with SET PLURALS and SET SPELLING
 NEWS 13  FEB 06  Patent sequence location (PSL) data added to USGENE
 NEWS 14  FEB 10  COMPENDEX reloaded and enhanced
 NEWS 15  FEB 11  WTEXTILES reloaded and enhanced

 NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
              AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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FULL ESTIMATED COST                                    0.22       0.22

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FILE 'MEDLINE' ENTERED AT 09:42:26 ON 12 FEB 2009

=> file registry
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                                                         ENTRY    SESSION
FULL ESTIMATED COST                                     0.90       1.12

FILE 'REGISTRY' ENTERED AT 09:42:32 ON 12 FEB 2009
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STRUCTURE FILE UPDATES:   11 FEB 2009  HIGHEST RN 1104680-36-5
DICTIONARY FILE UPDATES:  11 FEB 2009  HIGHEST RN 1104680-36-5

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predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> e acetylmethionine
E1          16     ACETYLMETHIONIN/BI
E2          16     ACETYLMETHIONINATO/BI
E3          29 --> ACETYLMETHIONINE/BI
E4          20     ACETYLMETHIONYL/BI
E5          73     ACETYLMETHOXY/BI
E6          56     ACETYLMETHOXYAMINO/BI
E7           1     ACETYLMETHOXYANNOMONTINE/BI
E8           3     ACETYLMETHOXYBIS/BI
E9           1     ACETYLMETHOXYPHENYL/BI
E10          1     ACETYLMETHOXYTYR/BI
E11          1     ACETYLMETHOXYTYRAMINE/BI
E12       6266     ACETYLMETHYL/BI

=> s e3
L1          29 ACETYLMETHIONINE/BI

=> file medline caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
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FULL ESTIMATED COST                                     5.83       6.95
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FILE 'MEDLINE' ENTERED AT 09:42:59 ON 12 FEB 2009

FILE 'CAPLUS' ENTERED AT 09:42:59 ON 12 FEB 2009
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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=> s (l1 or acetylmethionine) and (cancer? or tumor? or neoplasm?)
L2          55 (L1 OR ACETYLMETHIONINE) AND (CANCER? OR TUMOR? OR NEOPLASM?)

=> s l2 and py<=2003
   1 FILES SEARCHED...
L3          28 L2 AND PY<=2003

=> dup rem l3
PROCESSING COMPLETED FOR L3
L4           27 DUP REM L3 (1 DUPLICATE REMOVED)

=> d l4 ibib abs 1-27

L4   ANSWER 1 OF 27  CAPLUS  COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:        2003:434321  CAPLUS
DOCUMENT NUMBER:         139:923
TITLE:                   Methods and compositions for ameliorating the
                         undesirable effects of chemotherapy
INVENTOR(S):             Kil, Jonathan; Lynch, Eric D.
PATENT ASSIGNEE(S):      Sound Pharmaceuticals Incorporated, USA
SOURCE:                  PCT Int. Appl., 27 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
     WO 2003045334        A2    20030605    WO 2002-US38279        20021127 <--
     WO 2003045334        A3    20040226
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT,
             TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF,
             CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     CA 2466869           A1    20030605    CA 2002-2466869        20021127 <--
     AU 2002352982        A1    20030610    AU 2002-352982         20021127 <--
     AU 2002352982        B2    20080306
     US 20030157191       A1    20030821    US 2002-307245         20021127 <--
     EP 1461033           A2    20040929    EP 2002-789945         20021127
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
     CN 1596111           A     20050316    CN 2002-823676         20021127
     JP 2005510537        T     20050421    JP 2003-546839         20021127
     US 20060089313       A1    20060427    US 2005-299084         20051209
PRIORITY APPLN. INFO.:                      US 2001-334140P     P  20011129
                                            US 2002-307245      A1 20021127
                                            WO 2002-US38279     W  20021127
AB   In one aspect, the present invention provides chemoprotectant compns. that
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comprise at least two of the chemoprotectants disclosed herein. The chemoprotectant compns. of the invention are useful, for example, for ameliorating at least one adverse effect of chemotherapy. In another aspect, the present invention provides methods of ameliorating at least one adverse effect of chemotherapy, the methods each comprising the step of administering to a subject undergoing chemotherapy an amount of a chemoprotectant composition that is effective to ameliorate at least one adverse effect of the chemotherapy. The chemoprotectants include glutathione or precursors thereof, antioxidants, and glutathione peroxidase mimics. For example, N-acetylcysteine, ebselen, and allopurinol, alone or in combination, did not inhibit the ability of cisplatin to kill cultured NuTu-19 ovarian cancer cells as measured using the MTS cell viability assay.

L4 ANSWER 2 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:940007 CAPLUS
DOCUMENT NUMBER: 140:156689
TITLE: Reduction of Sulindac to its active metabolite, sulindac sulfide: assay and role of the methionine sulfoxide reductase system
AUTHOR(S): Etienne, Frantzy; Resnick, Lionel; Sagher, Daphna; Brot, Nathan; Weissbach, Herbert
CORPORATE SOURCE: Center for Molecular Biology and Biotechnology, Florida Atlantic University, Boca Raton, FL, USA
SOURCE: Biochemical and Biophysical Research Communications (2003), 312(4), 1005-1010
CODEN: BBRCA9; ISSN: 0006-291X
PUBLISHER: Elsevier Science
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Sulindac is a known anti-inflammatory drug that functions by inhibition of cyclooxygenases 1 and 2 (COX). There has been recent interest in Sulindac and other non-steroidal anti-inflammatory drugs (NSAID) because of their anti-tumor activity against colorectal cancer.
Studies with sulindac have indicated that it may also function as an anti-tumor agent by stimulating apoptosis. Sulindac is a pro-drug, containing a Me sulfoxide group, that must be reduced to sulindac sulfide to be active as a COX inhibitor. In the present studies the authors have developed a simple assay to measure sulindac reduction and tested sulindac as a substrate for 6 known members of the methionine sulfoxide reductase (Msr) family that have been identified in Escherichia coli. Only MsrA and a membrane associated Msr can reduce sulindac to the active sulfide. The reduction of sulindac also has been demonstrated in exts. of calf liver, kidney, and brain. Sulindac reductase activity is also present in mitochondria and microsomes.
REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:608891 CAPLUS
DOCUMENT NUMBER: 137:304430
TITLE: L-Methionine Inhibits Reaction of DNA with Anticancer cis-Diamminedichloroplatinum(II)
AUTHOR(S): Vrana, Oldrich; Brabec, Viktor
CORPORATE SOURCE: Institute of Biophysics, Academy of Sciences of the Czech Republic, Brno, CZ-61265, Czech Rep.
SOURCE: Biochemistry (2002), 41(36), 10994-10999
CODEN: BICHAW; ISSN: 0006-2960
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Sufficient evidence has accumulated to identify DNA as the relevant

pharmacol. target of antitumor cisplatin [cis-diamminedichloroplatinum(II)]. This drug is administered i.v. so that before it reaches DNA in the nucleus of tumor cells it may interact with various compds. including sulfur-containing mols. such as L-methionine or the compds. containing these residues. L-Methionine increases the rate of reaction of cisplatin with monomeric GMP, and it was suggested on the basis of these results previously obtained by other authors that methionine residues could mediate the transfer of platinum onto DNA. We studied in the present work the reactions of the 1:1 complex formed between cisplatin and L-methionine or N-acetyl-L-methionine with synthetic, single- and double-stranded oligodeoxyribonucleotides and natural, high mol. mass DNA by using high-pressure liquid chromatog. and flameless atomic absorption spectrophotometry. The results demonstrate that both L-methionine and N-acetyl-L-methionine decrease the rate of reaction of cisplatin with base residues in natural, high mol. mass DNA. Thus, the possibility that cisplatin bound to methionine residues serves as a drug reservoir available for platination of DNA in the nucleus of tumor cells appears unlikely.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 27 MEDLINE on STN
ACCESSION NUMBER: 2002097869 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11827570
TITLE: Cystathionine pathway-dependent cytotoxicities of diethyl maleate and diamide in rat and human hepatoma-derived cell cultures.
AUTHOR: Dierickx Paul J; De Beer Jacques O; Scheers Ellen M
CORPORATE SOURCE: Laboratorium Biochemische Toxikologie, Instituut voor Volksgezondheid, Afdeling Toxikologie, Wytsmanstraat 14, 1050 Brussels, Belgium.
SOURCE: Alternatives to laboratory animals : ATLA, (2002 Jan-Feb) Vol. 30, No. 1, pp. 61-8.
Journal code: 8110074. ISSN: 0261-1929.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200204
ENTRY DATE: Entered STN: 6 Feb 2002
Last Updated on STN: 4 Apr 2002
Entered Medline: 2 Apr 2002

AB Glutathione (GSH) plays a role in many toxicologically important metabolic processes. It was previously established that L-buthionine S,R-sulphoximine (BSO), a specific inhibitor of (- glutamylcysteine synthetase, reduces the GSH content more efficiently in rat (Fa32) than in human (HEp-G2) hepatoma-derived cells. We therefore investigated whether the cystathionase inhibitor propargylglycine (PPG) could further decrease the BSO-induced GSH depletion in HEp-G2 cells. The influence of the cystathionine precursors N-acetylmethionine, methionine and homocysteine on the cytotoxicity of diethyl maleate (DEM) and diamide [1,1'-azobis(N,N-dimethylformamide)] was also investigated. PPG reduced the GSH content in both cell lines. A further GSH decrease in HEp-G2 was obtained when using a BSO + PPG combination containing relatively high concentrations of PPG. BSO diminished the toxicity of PPG. Homocysteine was the most efficacious of the tested cystathionine precursors in increasing the GSH content and reducing the cytotoxicity of DEM and diamide in Fa32 and HEp-G2 cells.

L4 ANSWER 5 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1999:595178 CAPLUS
DOCUMENT NUMBER: 131:243258

TITLE: Preparation of thieno[2,3-c]pyrans and thieno[2,3-c]pyridines as modulators of protein tyrosine phosphatases (PTPases)

INVENTOR(S): Moller, Niels Peter Hundahl; Andersen, Henrik Sune; Iversen, Lars Fogh; Olsen, Ole Hvilsted; Branner, Sven; Holsworth, Daniel Dale; Bakir, Farid; Judge, Luke Milburn; Axe, Frank Urban; Jones, Todd Kevin; Ripka, Wiliam Charles; Ge, Yu; Uyeda, Roy Teruyuki

PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.; Ontogen Corporation

SOURCE: PCT Int. Appl., 157 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9946267	A1	19990916	WO 1999-DK121	19990311 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
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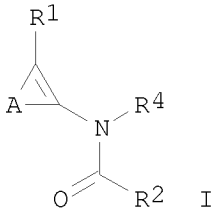
AU 9927135	A	19990927	AU 1999-27135	19990311 <--
BR 9908726	A	20001121	BR 1999-8726	19990311 <--
EP 1080095	A1	20010307	EP 1999-907332	19990311 <--
EP 1080095	B1	20051102		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, LT, FI, RO				
US 6262044	B1	20010717	US 1999-268490	19990311 <--
JP 2002506072	T	20020226	JP 2000-535645	19990311 <--
HU 2001004984	A2	20020429	HU 2001-4984	19990311 <--
HU 2001004984	A3	20030728		
AT 308546	T	20051115	AT 1999-907332	19990311
ZA 9902036	A	19991001	ZA 1999-2036	19990312 <--
NO 2000004527	A	20001107	NO 2000-4527	20000911 <--
MX 2000008927	A	20010328	MX 2000-8927	20000912 <--
IN 2000CN00375	A	20050304	IN 2000-CN375	20000912
US 6410586	B1	20020625	US 2001-810266	20010316 <--
US 20030069267	A1	20030410	US 2002-158464	20020528 <--
US 6951878	B2	20051004		

PRIORITY APPLN. INFO.:

DK 1998-344	A	19980312
DK 1998-480	A	19980403
DK 1998-938	A	19980715
DK 1998-1385	A	19981028
DK 1998-1612	A	19981207
US 1998-82915P	P	19980424
US 1998-93525P	P	19980721
US 1998-108747P	P	19981117
US 1999-268490	A3	19990311
WO 1999-DK121	W	19990311
US 2001-810266	A3	20010316

OTHER SOURCE(S): MARPAT 131:243258

GI



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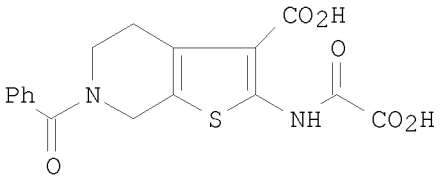

II

AB Thieno[2,3-c]pyrans and thieno[2,3-c]pyridines (I) [A = atoms to complete various 5/5 and 5/6 bicyclic heterocycles, e.g., thienopridines, thieno(thio)pyrans, benzothiophenes, etc.; R1 and R2 = independently acyl, OH or derivs., CF3, NO2, cyano, SO3H, (un)substituted NH2 or PO3H2, or various 5-membered heterocycles; R4 = H, OH, alkyl, (un)substituted aryl or aralkyl, (un)substituted NH2, alkoxy] were prepared as inhibitors of Protein Tyrosine Phosphatases (PTPases) such as PTP1B, CD45, SHP-1, SHP-2, PTPα, LAR, and HePTP. The compds. are useful in the treatment of type I diabetes, type II diabetes, impaired glucose tolerance, insulin resistance, obesity, immune dysfunctions including autoimmunity diseases with dysfunctions of the coagulation system, allergic diseases including asthma, osteoporosis, proliferative disorders including cancer and psoriasis, diseases with decreased or increased synthesis or effects of growth hormone, diseases with decreased or increased synthesis of hormones or cytokines that regulate the release of/or response to growth hormone, diseases of the brain including Alzheimer's disease and schizophrenia, and infectious diseases. For instance, 2-amino-6-benzoyl-4,5,6,7-tetrahydrothieno[2,3-c]pyridine-3-carboxylic acid Et ester was amidated with Et oxalyl chloride in THF (84%), followed by hydrolysis of the ester function with NaOH in aqueous solution to give the title compound(II) as the mono-Na salt (III) in 79% yield. In an in vitro test against PTP1B expressed in E. coli and purified by known methods, III had a Ki of 51 μM.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1999:595127 CAPLUS

DOCUMENT NUMBER: 131:228643

TITLE: Preparation of oxalylaminothiophene derivatives as modulators of protein tyrosine phosphatases (PTPases)

INVENTOR(S): Richter, Lutz Stefan; Andersen, Henrik Sune; Vagner, Josef; Jeppesen, Claus Bekker; Moller, Niels Peter Hundahl; Branner, Sven; Jeppesen, Lone; Olsen, Ole Hvilsted; Iversen, Lars Fogh; Holsworth, Daniel Dale; Axe, Frank Urban; Ge, Yu; Jones, Todd Kevin; Ripka, Wiliam Charles; Uyeda, Roy Teruyuki; Su, Jing; Bakir, Farid; Judge, Luke Milburn

PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.; Ontogen Corporation; Richter, Birgith

SOURCE: PCT Int. Appl., 230 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9946237	A1	19990916	WO 1999-DK126	19990312 <--

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

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US 20020019412	A1	20020214	US 1999-265316	19990309	<--
AU 9927139	A	19990927	AU 1999-27139	19990311	<--
US 6262044	B1	20010717	US 1999-268490	19990311	<--
CA 2323472	A1	19990916	CA 1999-2323472	19990312	<--
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ZA 9902032	A	19990927	ZA 1999-2032	19990312	<--
ZA 9902038	A	19990927	ZA 1999-2038	19990312	<--
ZA 9902036	A	19991001	ZA 1999-2036	19990312	<--
BR 9908723	A	20001121	BR 1999-8723	19990312	<--
EP 1080068	A1	20010307	EP 1999-907336	19990312	<--

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HU 2001002612	A2	20011128	HU 2001-2612	19990312	<--
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NO 2000004526	A	20001108	NO 2000-4526	20000911	<--
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US 6410586	B1	20020625	US 2001-810266	20010316	<--
US 20030069267	A1	20030410	US 2002-158464	20020528	<--
US 6951878	B2	20051004			

PRIORITY APPLN. INFO.:	DK 1998-350	A	19980312
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	DK 1998-343	A	19980312
	DK 1998-342	A	19980312
	DK 1998-344	A	19980312
	DK 1998-347	A	19980312
	DK 1998-346	A	19980312
	DK 1998-348	A	19980312
	DK 1998-479	A	19980403
	DK 1998-472	A	19980403
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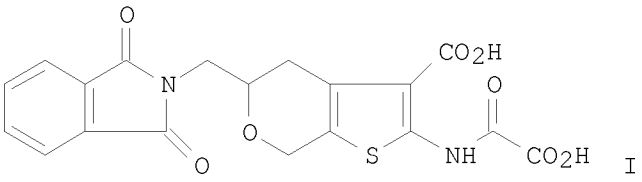
	DK 1998-474	A	19980403
	DK 1998-476	A	19980403
	DK 1998-480	A	19980403
	US 1998-82912P	P	19980424
	DK 1998-667	A	19980515
	US 1998-88115P	P	19980605
	DK 1998-939	A	19980715
	DK 1998-940		19980715
	DK 1998-938		19980715
	DK 1998-1385		19981028
	DK 1998-1561		19981126
	DK 1998-1612		19981207
	US 1998-82365P	P	19980420
	US 1998-82371P	P	19980420
	US 1998-82373P	P	19980420
	US 1998-82913P	P	19980424
	US 1998-82914P	P	19980424
	US 1998-82915P	P	19980424
	US 1998-93525P	P	19980721
	US 1998-93638P	P	19980721
	US 1998-108747P	P	19981117

US 1999-268490 A3 19990311
WO 1999-DK126 W 19990312
US 2001-810266 A3 20010316

GI



I

AB Oxalylaminoheterocycles (e.g., oxalylaminothiophene and oxalylaminothienopyran derivs., etc.) were prepared as inhibitors of Protein Tyrosine Phosphatases (PTPases), such as PTP1B, TC-PTP, CD45, SHP-1, SHP-2, PTPα, PTPε, PTPμ, PTPδ, PTPσ, PTPζ, PTPβ, PTPD1, PTPD2, PTPH1, PTP-MEG1, PTP-LAR, and HePTP. These compds. are indicated in the management or treatment of a broad range of diseases such as autoimmune diseases, acute and chronic inflammation, osteoporosis, various forms of cancer and malignant diseases, and type I diabetes and type II diabetes. For instance, 2-amino-5-hydroxymethyl-4,7-dihydro-5H-thieno[2,3-c]pyran-3-carboxylic acid tert-Bu ester (preparation given) was reacted with phthalimide in THF, PPh3, and DIAD to form the 5-phthalimidomethyl derivative (47%). The amine was amidated with imidazol-1-yloxoacetic acid tert-Bu ester in CH2Cl2 and TEA (99%), followed by hydrolysis of the ester function with TFA in CH2Cl2, to give 5-(1,3-dioxo-1,3-dihydroisoindol-2-ylmethyl)-2-(oxalylamino)-4,7-dihydro-5H-thieno[2,3-c]pyran-3-carboxylic acid (I) in 57% yield. In an in vitro test against PTP1B expressed in E. coli and purified by known methods, Ki values at various inhibitor concns. were determined An anal. of selectivity of two PTPase inhibitors against PTP1B, PTP-LAR, PTPε, CD45, and PTPβ showed that one compound of the invention is a non-selective inhibitor, whereas another behaves like a selective inhibitor.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1999:189901 CAPLUS
DOCUMENT NUMBER: 131:4137
TITLE: Identification of a second major tumor -specific antigen recognized by CTLs on mouse mastocytoma P815
AUTHOR(S): Bilsborough, Janine; Van Pel, Aline; Uyttenhove, Catherine; Boon, Thierry; Van den Eynde, Benoit J.
CORPORATE SOURCE: Ludwig Institute for Cancer Research, Universite Catholique de Louvain, Brussels, Belg.
SOURCE: Journal of Immunology (1999), 162(6), 3534-3540
CODEN: JOIMA3; ISSN: 0022-1767
PUBLISHER: American Association of Immunologists
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Murine mastocytoma P815 induces CTL responses against at least four distinct Ags (AB, C, D, and E). Recent studies have shown that the main component of the CTL response against the P815 tumor is targeted against Ags P815AB and P815E. The gene P1A has been well characterized. It encodes the P815AB Ag in the form of a nonameric peptide containing two epitopes, P815A and P815B, which are recognized by different CTLs. Here,

the authors report the identification of the P815E Ag. Using a cDNA library derived from tumor P815, the authors identified the gene coding for P815E. The authors also characterized the antigenic peptide that anti-P815E CTLs recognize on the MHC class I mol. H-2Kd. The P815E Ag results from a mutation within an ubiquitously expressed gene encoding methionine sulfoxide reductase, an enzyme that is believed to be important in the protection of proteins against the byproducts of aerobic metabolism Surprisingly, immunizing mice i.p. with syngeneic tumor cells (L1210) that were constructed to express B7-1 and P815E did not induce resistance against live P815, even though a strong anti-P815E CTL response was observed with splenocytes from immunized animals.

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 27 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 1998347170 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9682248
TITLE: Growth inhibition of subcutaneously transplanted hepatomas without cachexia by alteration of the dietary arginine-methionine balance.
AUTHOR: Millis R M; Diya C A; Reynolds M E; Dehkordi O; Bond V Jr
CORPORATE SOURCE: Department of Physiology and Biophysics, Howard University, Washington, DC 20059, USA.
SOURCE: Nutrition and cancer, (1998) Vol. 31, No. 1, pp. 49-55.
Journal code: 7905040. ISSN: 0163-5581.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199810
ENTRY DATE: Entered STN: 21 Oct 1998
Last Updated on STN: 21 Oct 1998
Entered Medline: 15 Oct 1998

AB Previous studies have shown that alteration of the dietary arginine-methionine balance by use of synthetic L-amino acids inhibits tumor growth of a subcutaneously transplanted Morris hepatoma at the expense of maintaining body weight. However, L-methionine is susceptible to degradation and, therefore, may contribute to a deficiency state. The present studies were performed to determine whether growth of subcutaneous hepatoma transplants is inhibited, and body growth maintained, when rats are fed diets containing L-methionine in replacement of N-acetyl-L-methionine (NALM) for 28 days. Tumor-free and tumor-bearing rats fed a control diet, with amino acids replacing protein, had gains in body weight: 31.3 +/- 1.0 and 19.1 +/- 0.5 g (12% and 7%), respectively. Rats fed six experimental diets, with varying L-arginine-NALM balances, had body weight gains ranging from 18.4 +/- 0.3 to 26.7 +/- 0.9 g (7-10%). Tumor weight of control rats was 10.65 +/- 0.24% of body weight. Diets supplemented with L-arginine in combination with normal and deficient NALM decreased tumor weights by 35% and 38%, respectively, It is concluded that dietary replacement of L-methionine with NALM and supplementation with L-arginine inhibits growth of a subcutaneously transplanted Morris hepatoma in the absence of cachexia.

L4 ANSWER 9 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1996:476772 CAPLUS
DOCUMENT NUMBER: 125:115140
ORIGINAL REFERENCE NO.: 125:21639a,21642a
TITLE: Preparation of nitric oxide-releasing agents for reducing metastasis risk
INVENTOR(S): Korthuis, Ronald J.; Kong, Lipu; Keefer, Larry K.

PATENT ASSIGNEE(S): United States Dept. of Health and Human Services, USA
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9615781	A1	19960530	WO 1995-US15381	19951120 <--
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5700830	A	19971223	US 1994-344341	19941122 <--
CA 2205555	A1	19960530	CA 1995-2205555	19951120 <--
CA 2205555	C	20010821		
AU 9642460	A	19960617	AU 1996-42460	19951120 <--
AU 699387	B2	19981203		
EP 804177	A1	19971105	EP 1995-940844	19951120 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
JP 10509181	T	19980908	JP 1995-517097	19951120 <--

PRIORITY APPLN. INFO.: US 1994-344341 A 19941122
WO 1995-US15381 W 19951120

OTHER SOURCE(S): MARPAT 125:115140

AB Title agents, comprising N2O2--containing biopolymers, e.g., RN(O):NOR1 [R = (in)organic moiety; R1 = R, a pharmaceutically acceptable metal center (sic), pharmaceutically acceptable cation] wherein said N2O2- group is bonded to said biopolymer through ≥1 of R or R1, were prepared Thus, ClCH2COCl was aminated and amidated by MeNH2 and the product maintained 48h at 25° with NaOMe/MeOH under 40psi NO to give NaON:N(O)NMeCH2CONHMe. Data for biol. activity of H2NCH2CH2N[N(O)NO-]CH2CH2NH3+ were given in graphic form.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1996:357099 CAPLUS
DOCUMENT NUMBER: 125:26237
ORIGINAL REFERENCE NO.: 125:4955a,4958a
TITLE: Antiviral drugs and immunomodulators containing chelate-forming agents
INVENTOR(S): Bacanu, Serban Al; Ionescu, Iulian; Sarzea, Sorin; Tomas, Stefan Teodor
PATENT ASSIGNEE(S): Medico Pharma Vertriebs Gmbh, Germany; Sicomed S.A.
SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9606639	A2	19960307	WO 1995-EP3426	19950831 <--
WO 9606639	A3	19960725		
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD,				

MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
TJ, TM, TT, UA, UG, US, UZ, VN, BE, FR, GR, IE, IT, MC, NL, BF,
BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG, SZ
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT,
LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE,
SN, TD, TG

DE 4431175	A1	19960411	DE 1994-4431175		19940901	<--
AU 9535194	A	19960322	AU 1995-35194		19950831	<--
PRIORITY APPLN. INFO.:			DE 1994-4431175	A	19940901	
			WO 1995-EP3426	W	19950831	

AB Combinations of chelate-forming agents and essential amino acids or their derivs. which are optionally complexed with bivalent metal ions are useful as antiviral agents, immunomodulators for treatment of autoimmune diseases, anticancer agents, and drugs for treatment of neurodegenerative diseases. Thus, Rodilemid (CaNa2EDTA/cysteine/Ca gluconate combination) (625 μg/mL) strongly inhibited HIV-1 in cultured MT-4 cells without inhibiting cell growth.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1996:694251 CAPLUS
DOCUMENT NUMBER: 125:326402
ORIGINAL REFERENCE NO.: 125:61174h,61175a
TITLE: An immunoreactive conjugate, method for its preparation, antibodies to the conjugate and a pharmaceutical composition and diagnostic device containing them
INVENTOR(S): Maes, Roland
PATENT ASSIGNEE(S): Anda Biologicals S.A., Fr.
SOURCE: Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE	
EP 736770	A2	19961009	EP 1996-870042		19960401	<--
EP 736770	A3	19970502				
R: BE, DE, FR, GB, IT						
BE 1009230	A6	19970107	BE 1995-316		19950405	<--
BE 1009917	A6	19971104	BE 1996-113		19960208	<--
PRIORITY APPLN. INFO.:			BE 1995-316	A	19950405	
			BE 1996-113	A	19960208	

AB An immunoreactive conjugate is disclosed which contains 1 or more haptens consisting of a sulfhydryl group and one of the following: amino acids, carbohydrates, amino carbohydrates, phosphatidylinositol, sphingosine, and their nitrosyl, acyl, or acetyl derivs., the haptens being coupled to a protein with a mol. weight >8000 Kd and/or a solid support by a coupling agent capable of binding to the sulfhydryl group of the hapten. Thus, NO-cysteine and NO-N-acetyl-L-cysteine conjugates with albumin were prepared, and birds and mammals were vaccinated. IgG and IgM class antibodies specific for N-acetyl-L-cysteine were detected in the subjects. Addnl. analyses demonstrated that many HIV-pos. patients have IgG specific for acetyl-cysteine. Pharmaceutical compns. using these immunoreactive conjugates can be used in the prevention and/or treatment of autoimmunity, AIDS, cancer, tuberculosis and a variety of other diseases.

L4 ANSWER 12 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1996:62493 CAPLUS

DOCUMENT NUMBER: 124:157165
ORIGINAL REFERENCE NO.: 124:28971a,28974a
TITLE: Ring-Opened Adducts of the Anticancer Drug Carboplatin with Sulfur Amino Acids
AUTHOR(S): Barnham, Kevin J.; Djuran, Milos I.; Murdoch, Piedad del Socorro; Ranford, John D.; Sadler, Peter J.
CORPORATE SOURCE: Birkbeck College, University of London, London, WC1H 0PP, UK
SOURCE: Inorganic Chemistry (1996), 35(4), 1065-72
CODEN: INOCAJ; ISSN: 0020-1669
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Reactions of the anticancer drug carboplatin (Paraplatin) with a variety of sulfur-containing amino acids have been investigated by 1H and 15N NMR spectroscopy and by HPLC. Thiols react very slowly and sulfur-bridged species containing four-membered Pt2S2 rings are the predominant products. In contrast reactions with thioether ligands are much more rapid, and kinetics for the initial stages of the reaction with L-methionine have been determined (k = 2.7 + 10-3 M-1 s-1). Surprisingly, very stable ring-opened species are formed such as cis-[Pt(CBDCA-O)(NH3)2(L-HMet-S)] which has a half-life for Met-S,N ring-closure of 28 h at 310 K. A study of the formation of the analogous product for N-acetyl-L-methionine and its subsequent ring closure is reported. Reactions such as these may play a role in the biol. activity of carboplatin.

L4 ANSWER 13 OF 27 MEDLINE on STN
ACCESSION NUMBER: 1995226450 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7711067
TITLE: Isolation and expression of rat thymidylate synthase cDNA: phylogenetic comparison with human and mouse thymidylate synthases.
AUTHOR: Ciesla J; Weiner K X; Weiner R S; Reston J T; Maley G F; Maley F
CORPORATE SOURCE: Nencki Institute of Experimental Biology, Department of Cellular Biochemistry, Warsaw, Poland.
CONTRACT NUMBER: CA44355 (United States NCI)
SOURCE: Biochimica et biophysica acta, (1995 Apr 4) Vol. 1261, No. 2, pp. 233-42.
Journal code: 0217513. ISSN: 0006-3002.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-L12138
ENTRY MONTH: 199505
ENTRY DATE: Entered STN: 24 May 1995
Last Updated on STN: 6 Feb 1998
Entered Medline: 15 May 1995

AB Two cDNA clones representing rat hepatoma thymidylate synthase (rTS) were isolated from a lambda ZAP II cDNA library using as a probe a fragment of the human TS cDNA. The two were identical except that one was missing 50 bp and the other 23 bp corresponding to the 5' coding region of the protein. The missing region was obtained by screening a rat genomic library. The open reading frame of rTS cDNA encoded 921 bp encompassing a protein of 307 amino acids with a calculated molecular mass of 35,015 Da. Rat hepatoma TS appears identical to normal rat thymus TS and the two sequences differ from mouse TS in the same eight amino acid residues. Six of these differences are in the first 21 amino acids from the amino-end.

The human enzyme differed from rat and mouse TS at 17 residues where the latter two were identical, with most changes being conservative in nature. The three species differed completely at only four sites. Because the mouse TS shares four amino acids with human TS at sites which differ from rTS and a comparable situation does not exist between rTS and human TS, it is suggested that mouse TS is closer to human TS phylogenetically than rTS. The polymerase chain reaction was used to subclone the protein coding region of rTS into a high expression vector, which expressed rTS in Escherichia coli to the extent of 10 to 20% of its cellular protein. Although the amino-end of the amplified TS was unblocked, that isolated from a FUdR-resistant rat hepatoma cell line contained mostly N-acetylmethionine on its N-terminal end, a finding that may have significant regulatory consequences, which are discussed. The TS level in the resistant cell line was 60 to 70-fold higher than normal which was found to be associated with both multiple gene copies and an expanded TS mRNA pool.

L4 ANSWER 14 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1990:191544 CAPLUS
DOCUMENT NUMBER: 112:191544
ORIGINAL REFERENCE NO.: 112:32184h,32185a
TITLE: Thiol and thioether suppression of cis-platinum-induced nephrotoxicity in rats bearing the Walker 256 carcinosarcoma
AUTHOR(S): Jones, Mark M.; Basinger, Mark A.
CORPORATE SOURCE: Cent. Mol. Toxicol., Vanderbilt Univ., Nashville, TN, 37235, USA
SOURCE: Anticancer Research (1989), 9(6), 1937-41
CODEN: ANTRD4; ISSN: 0250-7005
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An examination of 18 thiols and thio ethers revealed that the simultaneous administration of several of these with cis-platinum (CDDP) at 7.5 mg/kg (25 μmol/kg) i.v., as a single injection to rats bearing the Walker 256 carcinosarcoma led to significant reduction in the nephrotoxicity typically found with cis-platinum, and no apparent interference in its anti-neoplastic action towards this tumor. The thiols and thiol ethers were administered at a 20-fold molar excess to the CDDP and were combined with the CDDP immediately prior to administration. The most effective compds. in suppressing nephrotoxicity were D-, and L-methionine, Me and Et L-methioninate, and N-acetyl-DL-methionine.

L4 ANSWER 15 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1988:542107 CAPLUS
DOCUMENT NUMBER: 109:142107
ORIGINAL REFERENCE NO.: 109:23447a,23450a
TITLE: Nitrogen-14 NMR studies of amine release from platinum anticancer drugs: models and human blood plasma
AUTHOR(S): Norman, Richard E.; Sadler, Peter J.
CORPORATE SOURCE: Dep. Chem., Birkbeck Coll., London, WC1E 6BT, UK
SOURCE: Inorganic Chemistry (1988), 27(20), 3583-7
CODEN: INOCAJ; ISSN: 0020-1669
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The feasibility of using 14N{1H} NMR spectroscopy to follow reactions of Pt(II) antitumor drugs under biol. relevant conditions has been investigated. Amine release from cis-PtCl2(NH3)2 upon reaction with both L-methionine and N-acetyl-L-methionine and from PtCl2(1,2-diaminoethane) on reaction with L-methionine in aqueous solution can be readily detected. Upon incubation (37° for 24 h) of cis-PtCl2(NH3)2 with human blood plasma supplemented with L-methionine, at least one NH3 ligand appears to

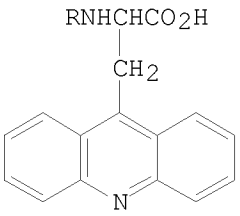
be lost. Ammonia release is also detected upon addition of excess sodium diethyldithiocarbamate (an agent used clin. to reverse cisplatin toxicity) to plasma incubated with cis-PtCl2(NH3)2 (37° for 2 h). Other 14N peaks assigned in plasma spectra include those for amides, phosphatidylcholines, and N2. Thus, 14N NMR spectroscopy provides a useful probe for studying these drugs at millimolar concns. under conditions that approach physiol. relevance.

L4 ANSWER 16 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1989:406348 CAPLUS
DOCUMENT NUMBER: 111:6348
ORIGINAL REFERENCE NO.: 111:1227a,1230a
TITLE: The effects of dietary alterations of L-arginine, L-methionine, and N-acetyl-L-methionine on the growth of Morris hepatoma #3924A and tumor polyamine levels
AUTHOR(S): Diya, Cornelius Adeniyi
CORPORATE SOURCE: Howard Univ., Washington, DC, USA
SOURCE: (1987) 240 pp. Avail.: Univ. Microfilms Int., Order No. DA8809013
From: Diss. Abstr. Int. B 1989, 49(7), 2573
DOCUMENT TYPE: Dissertation
LANGUAGE: English
AB Unavailable

L4 ANSWER 17 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1979:570855 CAPLUS
DOCUMENT NUMBER: 91:170855
ORIGINAL REFERENCE NO.: 91:27549a,27552a
TITLE: Pharmacokinetics of 99mTc-acetylmethionine in tumor-bearing animals
AUTHOR(S): Khachirov, D. G.; Petriev, V. M.; Savin, Yu. I.; Prikhod'ko, A. G.
CORPORATE SOURCE: Nauchno-Issled. Inst. Med. Radiol., Obninsk, USSR
SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1979), 13(8), 33-5
CODEN: KHFZAN; ISSN: 0023-1134
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Administration of 99mTc-labeled N-acetyl-DL-methionine (I) (100-50 μCi i.v.) to rats with exptl. induced muscle sarcomas resulted in the accumulation of 99mTc in different organs and tissues for 24 h. The highest accumulation occurred in the liver and kidneys. The 99mTc level in the neoplastic muscles was higher than in the healthy muscles; however, the difference was not statistically significant to justify the use of I for neoplasm scintigraphy. Similar results were obtained with Na99mTcO4, but the rate of accumulation of the label in the tissues was markedly lower than with I.

L4 ANSWER 18 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1977:423695 CAPLUS
DOCUMENT NUMBER: 87:23695
ORIGINAL REFERENCE NO.: 87:3773a,3776a
TITLE: Synthesis and study of β-acridyl-α-alanines and their derivatives
AUTHOR(S): Konyukhov, V. N.; Sakovich, G. S.; Aksenova, T. N.; Bandurina, T. A.; Radina, L. B.; Pushkareva, Z. V.; Lesnaya, N. A.; Barybin, A. S.
CORPORATE SOURCE: Ural. Politekh. Inst. im. Kirova, Sverdlovsk, USSR
SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1976), 10(7), 56-9
CODEN: KHFZAN; ISSN: 0023-1134

DOCUMENT TYPE: Journal
LANGUAGE: Russian
GI



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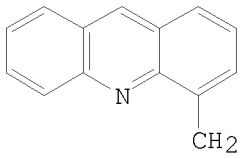

IV

AB The acridinylalanine I (R = H) (II) was coupled to Ac-Glu-OH anhydride, Ac-Met-OH, and Ac-Phe by dicyclohexylcarbodiimide to give the appropriate I [R = N-acetyl-α-glutamyl, Ac-Met (III), Ac-Phe]. Substitution reaction of 4-(bromomethyl)acridine with AcNHCH(CO2Et)2 and subsequent hydrolysis-decarboxylation gave the acridinylalanine IV. II, the N-oxide of II, and III at a daily dose of 100 mg/kg inhibited the growth of lymphosarcoma 35%, 62%, and 13%, resp.

L4 ANSWER 19 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1974:499491 CAPLUS
DOCUMENT NUMBER: 81:99491
ORIGINAL REFERENCE NO.: 81:15713a,15716a
TITLE: Inhibition of carcinoggenic and toxic effects of polycyclic hydrocarbons by several sulfur-containing compounds
AUTHOR(S): Wattenberg, Lee W.
CORPORATE SOURCE: Med. Sch., Univ. Minnesota, Minneapolis, MN, USA
SOURCE: Journal of the National Cancer Institute (1940-1978) (1974), 52(5), 1583-7
CODEN: JNCIAM; ISSN: 0027-8874
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Disulfiram (I) [97-77-8] and benzyl thiocyanate [3012-37-1] (PhCH2SCN) (0.03 mmole/g) and dimethyldithiocarbamate [79-45-8] (0.06 mmole/g) added to the diet inhibited 7,12-dimethylbenz[a]anthracene (II) [57-97-6]-induced mammary tumor formation and adrenal necrosis in female rats. Single oral administration of I (100 mg) 24 hr prior to II administration also suppressed mammary tumor formation. In the mouse, I prevented the occurrence of tumors of the forestomach that resulted from benzo[a]pyrene [50-32-8] in the diet, but did not affect pulmonary adenoma formation in mice given this carcinogen by oral intubation. Cystine [56-89-3] and L-methionine [63-68-3] and its derivs. were inactive as inhibitors of rat mammary tumors and adrenal necrosis. I had no effect on pulmonary adenoma formation from administration of benzo[a]pyrene by oral intubation in female mice.

L4 ANSWER 20 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1970:527221 CAPLUS
DOCUMENT NUMBER: 73:127221
ORIGINAL REFERENCE NO.: 73:20717a,20720a
TITLE: Analogs of methionine as substrates and inhibitors of the methionine adenosyltransferase reaction. Deductions concerning the conformation of methionine
AUTHOR(S): Lombardini, J. B.; Coulter, A. W.; Talalay, Paul

CORPORATE SOURCE: Sch. of Med., Johns Hopkins Univ., Baltimore, MD, USA
SOURCE: Molecular Pharmacology (1970), 6(5), 481-99
CODEN: MOPMA3; ISSN: 0026-895X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Steric, electronic, and conformational requirements are described for analogs of L-methionine essential to their function as substrates or inhibitors of the methionine adenosyltransferase reaction (EC 2.4.1.13). With the aid of partially purified transferase prepns. from Escherichia coli, bakers' yeast, and rat liver, a systematic study of substrate analogs has been undertaken. Inhibitors of the enzyme fall into 3 categories: (a) straight C chain amino acids, such as L-2-amino-4-hexenoic acid (trans but not the cis isomer) and L-2-amino-4-hexynoic acid, which are the most potent inhibitors; (b) cyclic amino acids, among which 1-aminocyclopentanecarboxylic acid and 1 of the 4 isomers of 1-amino-3-methylcyclopentanecarboxylic acid (either the 1R, 3R or the 1S, 3R isomer) are the most powerful; and (c) O-acetyl-L-serine, O-carbamoyl-L-serine, and S-carbamoyl-L-cysteine. Since inhibitors belonging to groups a and b possess considerable conformational rigidity by virtue of the presence of unsatns. or cyclic structures, it has been possible to draw conclusions with respect to the conformation of L-methionine at the active site of the adenosyltransferase reaction. A number of the inhibitors of the methionine adenosyltransferase reaction, such as 1-aminocyclopentanecarboxylic acid and S-carbamoyl-L-cysteine, are known to be inhibitors of the growth of certain microorganisms and tumors. The possibility is suggested that these inhibitory activities may be mediated at least in part through the inhibition of the synthesis of S-adenosyl-L-methionine.

L4 ANSWER 21 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1971:436607 CAPLUS
DOCUMENT NUMBER: 75:36607
ORIGINAL REFERENCE NO.: 75:5801a,5804a
TITLE: Data on the chemical structure and biological activity of hydrazides and hydrazones in a series of natural amino acids
AUTHOR(S): Khvorova, N. M.; Pushkareva, Z. V.; Radina, L. B.; Volovel'skii, L. N.; Sof'ina, Z. P.; Aglitskaya, K. V.
CORPORATE SOURCE: Ural. Politekh. Inst., Sverdlovsk, USSR
SOURCE: Puti Sinteza i Izyskaniya Protivoopukholevykh Preparatov (1970), Volume Date 1968, No. 3, 113-20
CODEN: PSIPA4; ISSN: 0370-1913
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB RCH(NHAc)CONHN:CHR1, (I) (R = PhCH2, p-HOC6H4CH2, MeS(CH2)2, R1CH:NNHCO(CH2)2, or indol-3-ylmethyl; R1 = 3,4-(HO)2C6H3 or 3,4-HO2C(HO)C6H3) exist in solution and in the solid state as hydrazones and not as azo forms. I (same R; R1 = gluco-pentahydroxypentyl or ribo-tetrahydroxybutyl) exist in the solid state in the pyranose or furanose form, but in solution an equilibrium exists with the acyclic form. Moderate antitumor properties were shown by the [p-[bis(β-chloroethyl)amino]benzylidene]hydrazide of N-acetyltryptophan and by the glucosylidenehydrazides of N-acetylmethionine and glutamic acid.

L4 ANSWER 22 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1961:14594 CAPLUS
DOCUMENT NUMBER: 55:14594
ORIGINAL REFERENCE NO.: 55:2900h-i
TITLE: Antitumor effect of amino acid analogs
AUTHOR(S): Abe, Mihoko; Chibata, Ichiro; Hirokawa, Hideo; Kameda,

Yukio; Mizuno, Denichi
SOURCE: Yakugaku Zasshi (1960), 80, 1309-11
CODEN: YKKZAJ; ISSN: 0031-6903
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Some methionine analogs which had a marked effect against the solid type Ehrlich ascites carcinoma in mice included L-RCH(NHCOCH2Cl)CO2H (R = MeSCH2CH2); RCH(NHCOCHCl2)CO2H; RCH(NHAc)CN; RCH(NHCOCH2Cl)CN; RCH(NHCOCH2NH2.HCl)CN; EtSCH2CH2CH(NH2.1/2H2SO4)CN; EtSCH2CH2CH(NHCOCH2Cl)CN.

L4 ANSWER 23 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1961:44317 CAPLUS
DOCUMENT NUMBER: 55:44317
ORIGINAL REFERENCE NO.: 55:8609c-e
TITLE: Acylase activity in the liver of rats fed 4-dimethylaminoazobenzene
AUTHOR(S): Kishi, Sanji; Haruno, Katsuhiko; Asano, Bunichi
CORPORATE SOURCE: Showa Med. School, Tokyo
SOURCE: Gann (1960), 51, 235-41
CODEN: GANNA2; ISSN: 0016-450X
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Activity of acylase in the liver of rats fed 4-dimethylaminoazobenzene (DAB) was measured by using as substrates acetanilide (AA), diacetyl-L-tyrosine (DAT), and acetylmethionine (AM). Activity of acylase for AA in the slightly cirrhotic liver was higher than that in normal liver, and even a severe case showed nearly the normal value, whereas the activity in hepatoma was scarcely detected. When DAT was used for acylase test, pathol. changed livers, including hepatoma, showed higher activity than normal liver. Acylase activity on AM was slightly higher than normal in the pathol. but noncancerous livers. Hepatoma showed 60% of the normal value. The liver of DAB-treated rats in the 4th week of experiment showed higher activity than normal when tested with AA, DAT, or AM. With regenerating liver the activity diminished to about half that of the excised portion of the same liver.

L4 ANSWER 24 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1961:44316 CAPLUS
DOCUMENT NUMBER: 55:44316
ORIGINAL REFERENCE NO.: 55:8608i,8609a-c
TITLE: The effect of toxohormone on iron metabolism
AUTHOR(S): Ono, Tetsuo; Ohashi, Mochihiko; Yago, Nagasumi
CORPORATE SOURCE: Japanese Foundation Cancer Research, Tokyo
SOURCE: Gann (1960), 51, 213-21
CODEN: GANNA2; ISSN: 0016-450X
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB In these expts. there were used 4 kinds of toxohormone (I) prepns., which varied in the extraction procedures and activities, all obtained from rat fibrosarcoma. One of them, T-fraction, was Nakahara and Fukuoka's EtOH precipitate, the second one, a-fraction, was a fraction adsorbed on Ca phosphate gel from the H2O extract of tumor tissues, the third, PSa-fraction, was prepared in the same way as a-fraction by Ca phosphate gel adsorption but from the boiled supernatant of tumor homogenate after removing a-fraction, and the last one, a-CM-fraction, the most active in catalase-depressing action among these 4 prepns., was the fraction purified by carboxymethylcellulose column chromatography from a-fraction. All were shown to decrease plasma Fe level of rats. The order of magnitude of this activity was the same as that established for their liver catalase-depressing activity. By using Fe-labeled plasma, it

appeared that the lowering of Fe mobilization from the tissue reserve may be the most probable mechanism for action of toxohormone in decreasing plasma Fe.

L4 ANSWER 25 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1960:67887 CAPLUS
DOCUMENT NUMBER: 54:67887
ORIGINAL REFERENCE NO.: 54:12998h-i,12999a
TITLE: α-Acylamino-γ-methylthiobutyronitrile
INVENTOR(S): Yamada, Shunichi; Chibata, Ichiro
PATENT ASSIGNEE(S): Tanabe Drug Manufg. Co.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 34003311	B4	19590504	JP	<--

AB To 6.5 g. α-amino-γ-methylthiobutyronitrile in 20 cc. AcOH was dropped 6.1 g. Ac2O during 30 min., the mixture stirred at 45-50° 4 hrs., concentrated in vacuo, to the residue added small amount of H2O, and the precipitated mass recrystd. from dilute EtOH to give 71% α-acetylamino-γ-methylthiobutyronitrile, plates, m. 47-9°. Similarly were prepared α-chloroacetylamino-γ-methylthiobutyronitrile, columns, m. 60-3°, and α-glycylamino-γ-methylthiobutyronitrile; hydrochloride m. 132-5°. The products exhibited inhibiting activities for cancer and virus.

L4 ANSWER 26 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1961:14595 CAPLUS
DOCUMENT NUMBER: 55:14595
ORIGINAL REFERENCE NO.: 55:2900i,2901a
TITLE: Feeding of surface-active substances and effect on infections
AUTHOR(S): Borneff, J.
SOURCE: Archiv fuer Hygiene und Bakteriologie (1957), 141, 578-95
From: C.Z. 1958, 10135.
CODEN: AHBAAM; ISSN: 0003-9144
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Hostapon (I) and Pril (II), surface-active materials, were given to guinea pigs and mice. I was given in high dose, II in normal dose corresponding to a possible human dose. No toxic effects were found at a level of 325 mg./kg./day, and no effect was found on enteral bacterial flora. Harmful effects were found only with concurrent streptococcal infection and treatment with I or II.

L4 ANSWER 27 OF 27 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1958:67871 CAPLUS
DOCUMENT NUMBER: 52:67871
ORIGINAL REFERENCE NO.: 52:12216e-f
TITLE: Behavior of blood glutathione in gastric patients after insulin treatment
AUTHOR(S): Musebeck, Klaus
CORPORATE SOURCE: Med. Akad., Dresden, Germany
SOURCE: Arztl. Forsch. (1957), 11, 313-16
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Although insulin produced within 10 min. a transient increase in

glutathione blood level (I) in healthy controls, 20 I.U. of insulin intravenously lowered I in patients with gastric or duodenal ulcer, or with cancer of the stomach. Resection gave no change in the I response to insulin, but after surgical removal of the ulcer, patients gave a normal response. Injection of thiomedon produced no effect in either controls or patients.

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NEWS 15	DEC 02	PCTGEN enhanced with patent family and legal status display data from INPADOCDB
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=> s (alphaketoglutaric or alpha ketoglutaric) and (?furfural or dehydroascorbic or
malt or vanillin)
L1          53 (ALPHAKETOGLUTARIC OR ALPHA KETOGLUTARIC) AND (?FURFURAL OR DEHY
               DROASCORBIC OR MALT OR VANILLIN)

=> dup rem l1
PROCESSING COMPLETED FOR L1
L2           47 DUP REM L1 (6 DUPLICATES REMOVED)

=> s l2 and (cancer or tumor or neoplasm)
L3           5 L2 AND (CANCER OR TUMOR OR NEOPLASM)

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=> d l3 ibib abs 1-5

L3   ANSWER 1 OF 5  CAPLUS  COPYRIGHT 2010 ACS on STN
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ACCESSION NUMBER: 2010:195517 CAPLUS
TITLE: Simultaneous quantitative determination of . alpha.-ketoglutaric acid and 5-hydroxymethylfurfural in human plasma by gas chromatography-mass spectrometry
AUTHOR(S): Wagner, Bernhard M.; Donnarumma, Fabrizio; Wintersteiger, Reinhold; Windischhofer, Werner; Leis, Hans J.
CORPORATE SOURCE: Research Unit of Osteology and Analytical Mass Spectrometry, University Children's Hospital, Medical University Graz, Graz, 8036, Austria
SOURCE: Analytical and Bioanalytical Chemistry (2010), 396(7), 2629-2637
CODEN: ABCNBP; ISSN: 1618-2642
PUBLISHER: Springer
DOCUMENT TYPE: Journal
LANGUAGE: English
AB α -Ketoglutaric acid (α-KG) and 5-hydroxymethylfurfural (5-HMF) are currently under investigation as promising cancer cell damaging agents. A method for the simultaneous quant. determination of α-KG and 5-HMF in human plasma was established for screening these compds. in human plasma. Plasma samples were directly treated with O-(2,3,4,5,6-pentafluorobenzyl) hydroxylamine hydrochloride to form the corresponding oximes, thus facilitating subsequent liquid-liquid extraction After formation of the trimethylsilyl ethers, samples were analyzed by gas chromatog. with electron ionization mass spectrometry. Stable isotope labeled stds. were used, the preparation of 13C6-5-HMF is described. Limits of quantitation were set to 0.938 μg/mL for α-KG and 0.156 μg/mL for 5-HMF. Inter-day accuracy was ≤93.7% (α-KG) and ≤92.8% (5-HMF). Inter-day precision was ≤6.0% (α-KG) and ≤4.6% (5-HMF). The method has been successfully applied to pharmacokinetic profiling of the compds. after i.v. application.
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2006:1326164 CAPLUS
DOCUMENT NUMBER: 146:134507
TITLE: Development and validation of a liquid chromatographic method for the determination of hydroxymethylfurfural and alpha-ketoglutaric acid in human plasma
AUTHOR(S): Michail, K.; Juan, H.; Maier, A.; Matzi, V.; Greilberger, J.; Wintersteiger, R.
CORPORATE SOURCE: Institute of Pharmaceutical Sciences, University of Graz, Austria
SOURCE: Analytica Chimica Acta (2007), 581(2), 287-297
CODEN: ACACAM; ISSN: 0003-2670
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Hydroxymethylfurfural (HMF) and alpha-ketoglutaric acid (KG) have been recently investigated as potential cancer cell damaging agents. We herein report for the first time a validated quant. assay for their simultaneous determination in human plasma which is amenable to be applied in the future screening of the target compds. in human probands in order to properly design a targeted chemotherapeutic regimen for certain types of malignant tumors. A simple liquid chromatog. method in conjunction to derivatization after a

two-step optimized solid phase clean-up procedure is described. The method is based on the reaction of HMF and KG with 2-nitrophenylhydrazine or 2,4-dinitrophenylhydrazine in an aqueous environment. Reaction conditions were studied with respect to pH, reagent volume, reaction temperature and time. Exact testing of such parameters beside careful selection of the mobile phase composition rendered feasible the quantification of the chemical significantly differing analytes along a single chromatog. run. The formed derivs. could be separated isocratically by reversed-phase LC on a C8-column. Detection in the UV and in the visible range is possible. Results showed good recovery and reproducibility with detection limits (S/N = 3) down to 2 pmol analyte on column. Resolution of the syn and anti geometric isomers of the HMF and KG derivs. is possible. The isomeric ratio in relation to the reaction pH is discussed.

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2004:467738 CAPLUS

DOCUMENT NUMBER: 141:17591

TITLE: Agent having a destructive effect on malignant tumors and method for the production

INVENTOR(S): Groke, Karl; Herwig, Ralf

PATENT ASSIGNEE(S): C.Y.L. Handelsges. m.b.H., Austria; Ferdinand, Peter

SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004047832	A1	20040610	WO 2003-EP50712	20031013
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AT 2002001778	A	20040815	AT 2002-1778	20021127
AT 412447	B	20050325		
CA 2507273	A1	20040610	CA 2003-2507273	20031013
AU 2003285351	A1	20040618	AU 2003-285351	20031013
EP 1565176	A1	20050824	EP 2003-778338	20031013
EP 1565176	B1	20060524		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006508998	T	20060316	JP 2004-554531	20031013
AT 326958	T	20060615	AT 2003-778338	20031013
PT 1565176	E	20061031	PT 2003-778338	20031013
ES 2268452	T3	20070316	ES 2003-778338	20031013
US 20060292218	A1	20061228	US 2006-536777	20060907

PRIORITY APPLN. INFO.:

AT 2002-1778	A	20021127
EP 2003-778338	A	20031013
WO 2003-EP50712	W	20031013

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Disclosed is an agent which has a destructive effect on malignant tumors and contains alpha-ketoglutaric acid, N-acetyl-seleno-L-methionine, N-acetyl-L-methionine, and a compound that is capable of forming azomethine and is selected among the group 5-hydroxymethylfurfural, dehydroascorbic acid, maltol, and vanillin as an active substance, 5-hydroxymethylfurfural being preferred. The inventive agent can be used in the form of an infusion, in an oral or rectal form of administration, or as an irrigation in cancer therapy. The treatment of cancer patients with the following infusion solution is reported: α - ketoglutaric acid 9.0 g/L; 5-hydroxymethyl furfural 3.0 g/L; N-acetyl-seleno-L-methionine 2.0 mg/L; N-acetyl-L-methionine 100.00 mg/L; glucose 30.0 g/L; sodium and potassium ions to set pH.

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1990:434696 CAPLUS

DOCUMENT NUMBER: 113:34696

ORIGINAL REFERENCE NO.: 113:5777a,5780a

TITLE: Neoplasm inhibitor comprising .alpha .-ketoglutaric acid and azomethine-forming compounds

INVENTOR(S): Groke, Karl; Miggitsch, Hans; Musil, Horst; Polzer, Josef

PATENT ASSIGNEE(S): Leopold und Co. Chem. Pharm. Fabrik G.m.b.H., Austria

SOURCE: Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 326826	A1	19890809	EP 1989-100493	19890112
EP 326826	B1	19920325		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 8800218	A	19910215	AT 1988-218	19880203
AT 393221	B	19910910		
AT 74006	T	19920415	AT 1989-100493	19890112
ES 2033021	T3	19930301	ES 1989-100493	19890112
US 5006551	A	19910409	US 1989-301035	19890124
JP 01226810	A	19890911	JP 1989-22747	19890202
DK 8900470	A	19890915	DK 1989-470	19890202
PRIORITY APPLN. INFO.:			AT 1988-218 A	19880203
			EP 1989-100493 A	19890112

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Neoplasm inhibitor comprise α - ketoglutaric acid (I) and compd(s). capable of forming azomethine bonds, such as 5-hydroxymethylfurfural (II), dehydroascorbic acid, maltol and vanillin. The latter compds. stimulate I enrichment by tumors. The compns. also comprise electrolytes and sugar and may be administered as infusions, or orally, rectally, as ointments, etc. An infusion solution comprised I 6.000, II 2.000, $CaCl_2.2H_2O$ 0.588, KOH (85%) 1.320, $MgCl_2.6H_2O$ 0.813, NaOH 1.200, Na glycerophosphate 6.122, $ZnCl_2$ 0.010, and glucose 50.000 g/L. The infusion, administered daily at 0.5 L for 16 days caused total regression of prostate carcinoma and lung metastases in a patient.

OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD

(8 CITINGS)

L3 ANSWER 5 OF 5 MEDLINE on STN
ACCESSION NUMBER: 2007598157 MEDLINE
DOCUMENT NUMBER: PubMed ID: 17768058
TITLE: The impact of preoperative micronutrient supplementation in lung surgery. A prospective randomized trial of oral supplementation of combined alpha-ketoglutaric acid and 5-hydroxymethylfurfural.
AUTHOR: Matzi Veronika; Lindenmann Joerg; Muench Andreas; Greilberger Joachim; Juan Heinz; Wintersteiger Reinhard; Maier Alfred; Smolle-Juettner Freyja Maria
CORPORATE SOURCE: Department of Surgery, Division of Thoracic and Hyperbaric Surgery, Medical University Graz, Graz, Austria.
SOURCE: European journal of cardio-thoracic surgery : official journal of the European Association for Cardio-thoracic Surgery, (2007 Nov) Vol. 32, No. 5, pp. 776-82. Electronic Publication: 2007-09-04.
Journal code: 8804069. ISSN: 1010-7940. L-ISSN: 1010-7940.
PUB. COUNTRY: Germany: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(CLINICAL TRIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200802
ENTRY DATE: Entered STN: 10 Oct 2007
Last Updated on STN: 29 Feb 2008
Entered Medline: 28 Feb 2008

AB OBJECTIVE: Preoperative micronutrient supplementation in fast-track surgery programs have shown to reduce complications, shorten recovery, and thereby lower costs. In a prospective randomized study, the metabolic effects of a combination of alpha-ketoglutaric acid (alpha-KG) and 5-hydroxymethylfurfural (5-HMF) were evaluated concerning their impact on improvement of exercise capacity and reduction of oxidative stress in lung surgery. METHODS: Thirty-two consecutive patients admitted for lung resection due to NSCLC were randomized to the study protocol. All patients received preoperative nutritional guidelines according to general recommendations. In 16 (study group), a supplementation of 7.2g alpha-KG and 720 mg 5-HMF/day (SANOPAL) was administered from days 1 to 10. Spiroergometric evaluation was carried out at baseline and day 10 after micronutrient supplementation. Blood samples for the determination of oxidative stress, i.e. carbonyl proteins (CPs) and isoprostanes (IPs) were taken on at baseline, in the operating room just before resection treatment, and 25 min after single lung ventilation (SLV). RESULTS: Spiroergometric re-evaluation showed a significant increase of VO2max (p=0.0108) and Watt's (p=0.011) in favor of the study group. Determination of oxidative stress showed a significant reduction of CPs before (p=0.048) and after SLV (p=0.0001) for the study group compared to the control group. The same is true for IPs before (p=0.003) and after SLV (p=0.02). Hospitalization and intensive care unit (ICU) of the study group showed a significant reduction compared to the control group (p=0.03 and p=0.02, respectively). CONCLUSIONS: Simple oral supplementation using a combination of alpha-KG and 5-HMF of preoperative micronutrition may therefore be one further step in a multimodality approach of fast-track surgery programs also in lung surgery.

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